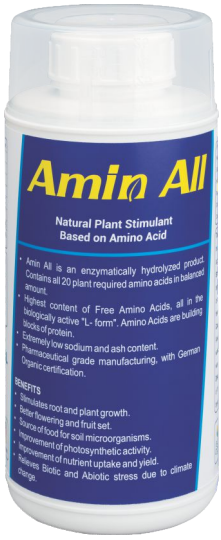
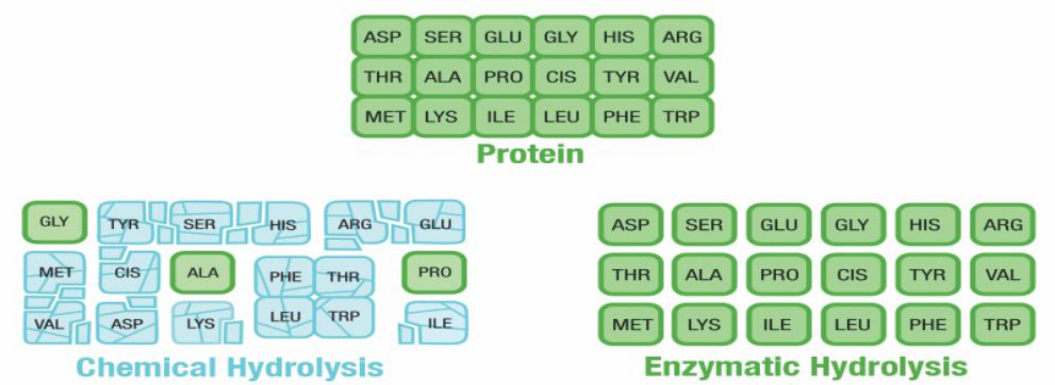
Amin All

Natural Plant Stimulant based on Amino Acids.



- Amin All is an enzymatically hydrolyzed product. Contains all 20 plant required amino acids in a balanced amount.
- The highest content of Free Amino Acids, all in the biologically active "L- form".
- Extremely low sodium and ash content.
- Pharmaceutical grade manufacturing, with American and German Organic certification



Pharmaceutical-grade enzymatic hydrolysis produces a consistent output of high concentration, biologically-active amino acids

AMIN ALL SPECIFICATIONS* (With Independent Lab Certification):

Contents	w/w
Total L- α Amino Acids	31.44%
Dry matter	44 -45%
Total Nitrogen	5.4%
Organic Carbon	20%
Chloride	0.05%
Sodium	1.4%
Free L- α Amino Acids	21%
Organic matter	40%
Organic Nitrogen	5.4%
Ash	<5.5%
pH	5.2-5.8
Density (g/ml)	1.10 ± 0.05

The product contains all biologically Active free amino acids: ASP, SER, GLU, GLY, HIS, ARG, THR, ALA, PRO, CYS, TYR, VAL, MET, LYS, ILE, LEU, PHE, TRP, GLN, ASN.

What are amino acids?:

- Amino acids are the building blocks of all proteins. Proteins are formed by a sequence of Amino Acids. Amino acids have two isomers which are dextrorotatory (D) and laevorotatory (L). D-Amino Acids are not recognized by the enzymatic locus and therefore cannot participate in protein synthesis in plants. L-amino acids should be in the form of Free Amino Acids or in the form of small peptides for them to be absorbed by plants. Large molecules with a high molecular weight cannot be absorbed and further used by plants. There are 20 protein amino acids.

Why are amino acids important for plants?

- Plants can synthesize all the amino acids. Amino acids are required by plants throughout all their growing stages.

Amino acids are important in the following functions.

- The starting points for the synthesis of cellular molecules including vitamins, nucleotides, chlorophyll, enzymes, proteins, etc.
- They have an important nutritional function during germination, during the synthesis of proteins (enzymes and structural proteins, etc); in the formation of phytohormones such as auxins, ethylene, polyamines, porfirines etc.
- Regulation of the water balance especially when plants are under stressful conditions.
- Amino acids also act as chelating molecules of essential nutrients for normal development of the plant.

Why is it important to supplement amino acids to plants?

- Under optimum growing conditions, plants synthesize their own L-amino acids through thousands of chemical reactions and by significant use of energy. However, when growing under stressful conditions, plants decrease or stop the synthesis of carbohydrates and consequently the production of L-amino acids. Instead, plants have to hydrolyze or break down structural proteins to obtain the required L-amino acids. These activities require extraordinary use of energy by plants and contribute to the reduction of root mass and the quality of plants.
- The synthesis of amino acids is costly for plants concerning the energy requirement. This energy expense is especially important in the moments when the plant physiology is not optimum. Studies have proved that Amino Acids can directly or indirectly influence the physiological activities of the plant.

Effects on Plants

- **Stress Resistance –** High temperature, low humidity, frost, pest attacks, hailstorms and floods have negative effects on metabolism with the corresponding reduction in crop quality and quantity. The applications of amino acids before, during and after the stress conditions supply plants with amino acids which are directly related to stress physiology and thus have to prevent and recovering effects.
- **Effect Of Photosynthesis–** Plants synthesize carbohydrates by photosynthesis, and chlorophyll is responsible for the absorption of light energy. A low photosynthesis rate implies a slow growth leading to the death of plants. Glycine and Glutamic acid are fundamental metabolites in the process of formation of vegetable tissue and chlorophyll synthesis. These amino acids help to increase chlorophyll concentration in plant leading to a higher degree of photosynthesis. This makes crop lush green.
- **Amino Acids and Phytohormones –** Amino Acids are precursors or activators of phytohormones and growth substances. L-Methionine is the precursor of ethylene and growth factor such as Spermine and Spermidine, which are synthesized from 5- Adenosylemethionine. L-Tryptophan is a precursor for auxin synthesis. L-Arginine induces synthesis of flower and fruit-related hormones.
- **Pollination and Fruit Formation –** L-Lysine, L-Methionine, and L-Glutamic Acid are essential amino acids for pollination. These amino acids increase the pollen germination and are responsible for the length of the pollen tube.
- **Equilibrium of Soil Flora –** The equilibrium of microbial flora of the agriculture soil is a basic question for good mineralization of the organic matter and also for a good soil structure and fertility around the roots. L-Methionine is a precursor of growth factors that stabilize the cell walls of the microbial flora. Amino Acids supplied to plant by incorporating them into the soil helps in improving the microflora of the soil thereby facilitating the assimilation of nutrients.

General

- L-Proline and Hydroxyl – Proline acts mainly on the hydro balance of plant, strengthening the cellular walls in such a way that they increase resistance to unfavourable climatic conditions.
- L-Alanine, L-Valine and L-Leucine improve quality of fruits.
- L-Histidine helps in proper ripening of fruits

AMIN ALL - For Foliar and Fertigation use in all crops.

- Foliar Application: 2 ml/Liter of water OR 1.0 Liter /Acre
- Fertigation /Drench: 1-1.5 Liter/ Acre

SHAKE WELL BEFORE USE.

Tank mixing/co-application: Always carry out "Jar test" before mixing Amin All with other products. Co-application is entirely at the risk of the end-users.

Caution: Do not exceed the appropriate application rate. Do not spray under hot and bright days. Avoid contact with skin and eyes. Always Use PPE. Do not empty into drains and waterways. Dispose of empty container in a safe way.

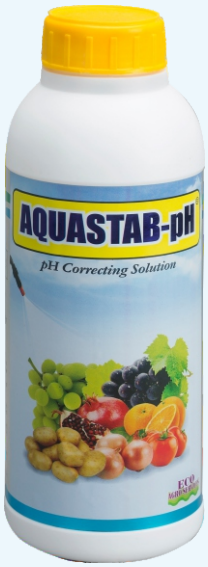
Storage: This product is stable under ordinary temperature. Do not expose to direct sunlight or high temperature (above 30^{o} C). Once Opened, Use the container fully. Keep away from food, drink, animal feedstuff and children

Manufactured by:
AMINOCORE DEUTSCHLAND GMBH,
Germany

Imported, Packed & Marketed by:
Eco Agro Sciences LLP
Pune

Product of GERMANY

AQUASTAB pH



Introduction:

What is pH?

It is a measurement of the level of acid or alkali in an aqueous solution. pH denotes hydrogen ion concentration, and the measurement of pH is on a logarithmic scale of 0-14 in which 0-6.5 range is acidic, 6.5 -7.5 range is neutral and 7.5 and above is basic. Due to logarithmic scale 8.5 is 10 times greater than 7.5 and so on.

- Almost all pesticides work more effectively in Acidic pH. (5.5-6.5).
- Pesticides belonging to Organophosphate, Carbamate, & Synthetic Pyrethroids are prone to Alkaline Hydrolysis (Degradation) to become ineffective as pesticides.
- The speed of degradation is dependent on the pH of the solution and more Alkaline a solution, faster is its breakdown.
- PGR such as Ga3 also perform better in Acidic pH.

Aquastab pH – Internationally proven acidifier and stabilizer:

- Aquastab pH contains a pH indicator, which allows its use at correct dose even without use of pH paper or meter.
- Aquastab pH works as an acidifier, and reduces the pH of alkaline & hard water. It contains buffer to stabilize the pH and prevents reversal of pH to alkaline level after some time.
- Aquastab pH also sequesters salts in hard water which may interfere with pesticide molecule, especially Weedicides such as Glyphosate, 2-4-D, Atrazine, which are prone to be affected by salt content in water
- Aquastab pH can be used with all pesticide formulations with the exception of Copper, Sulphur, Ziram & sulfonyl urea.

The application dosage is dependent on:

- pH of water
- Type and concentration of dissolved salts
- Hence, it is not possible to recommend a dose suitable for different water quality. However, as it contains a colour indicator, the farmer should observe how many ml per lit are required to get pinkish colour (about 5 pH), as given on the bottle.

Composition: Acidifiers, Buffers, and Stabilizers

Specification:

- Density: 1.3 g/c.c.
- Colour: Dark Red
- pH: 1
- Form: Liquid

AQUASTAB pH Benefits:

- Improves efficacy of pesticides.
- Increases efficiency of Ga3 for longer rachis and high quality grapes.
- Berry, Pedicel and Rachis remain flexible. Thus, preventing berry shattering and berry drop at harvest.
- Does not leave stain on fruit / vegetables.
- It is economical to use, due to low application dose.

Application Rate:

- Add Aquastab- pH slowly to water while stirring, till the solution changes its colour to pink-red.
- Then add pesticide.

Caution:

- Do not use any copper or acidic material.
- Do not use with Sulfonyl Urea Weedicides.

Manufactured by: Cam-Ferti, S.L Spain Cam - Ferti, S.L.Spain

Eco Drip

- A concentrated mixture of 100 % imported Ascophyllum Nodosum seaweed extract, Amino Acids, Humic and Fulvic acids.
- Specifically formulated for early crop establishment and Strong crop growth. Help crops overcome Abiotic stress such as excess heat/cold, drought, salinity, waterlogging etc.
- Contains traces of Betaines, Vitamins etc

Eco Drip Composition

Contents	% (v/v)
Ascophyllum Nodosum Extract	9.6%
Amino Acids	15.37%
Organic Matter	27%
Fulvic Acid	7.5%
Humic Acid	5%
pH	9-10
Density (g/ml)	1.23

Benefits

- Promotes vigorous root and plant growth.
- Promotes the availability and quick uptake of nutrients.
- Increases soil microbial activity.
- Helps to improve soil structure, texture, CEC, and water retention.
- Improved defense mechanism against pest, disease.
- Easy to apply along with drip irrigation with/without fertilizer.
- Improves crop yield and quality.
- The low dose of application hence economical to use.

Rate of Application : Drip: 1 liter/ acre

Manufactured, Packed & Marketed by:
Eco Agro Sciences LLP
Pune

HUMECO H 25 Manufactured from Highly oxidized bio-active American Leonardite

Specifications:

Total Humic Extract (THE): 25% (w/w)

- Humic Acid: 10% (w/w)
- Fulvic Acid: 15% (w/w)
- K2O: 7 - 9% (w/w)
- Density: 1.16 to 1.18 (g/c.c.)
- pH: 12
- Water Solubility: 100%

HUMECO H 25 Benefits:

- Fulvic acid has low molecular weight and easily penetrates cuticle and plasma membrane to exert physiological effect.
- Fulvic acid is natural organic electrolyte which stimulates metabolism of plants and nucleic acid synthesis.
- Fulvic acid is a scavenger of free oxygen radical and works as an antioxidant.
- Fulvic acid increases chlorophyll biosynthesis promotes draught tolerance and improves yield.
- Fulvic acid complexes, transports and distributes metal elements within plants.
- Fulvic acid improves enzyme production-Plant enzymes are stimulated to produce more rapid growth.
- Humeco H 25 liberates macro and micro nutrients blocked by excessive carbonate.
- Humeco H 25 increases CEC, for better retention of nutrients in soil.
- Humeco H 25 improves sugar contents of fruits and vegetables.
- Humeco H 25 improves seed germination rate and germination time.

Application Rate:

Drip: 1-2 Liters/acre per application

Foliar: 1-1.5 ml per Liter

Manufactured by :

Cam-Ferti, S.L Spain

Cam-Ferti, S.L.Spain

HUMECO POWER

Manufactured from Highly oxidized bio-active American Leonardite

Product Description & Appearance:

Black granules

Specifications:

Total Humic Extract: - 65% w/w

- Humic Acid: 60% (w/w)
- Fulvic Acid:- 5% (w/w)
- K2O: 8% (w/w)
- pH: 9-10
- Water Solubility: 100% (slowly add to tank with continuous stirring)

HUMECO POWER Benefits:

- Improved soil structure, increased friability, water holding capacity and penetration of water.
- Protection from high sodium and pH –fluctuations-Humic acid is natural buffering agent.
- Increased CEC, for better retention of nutrients.
- The stabilization of phosphate: unlocking existing, tied up reserves and reducing the "Lockup" rate of applied phosphate.
- Long life Nitrogen-Urea, for example, will perform for 60 to 80 days longer
- Chelation and complexing of applied fertilizer.
- Increased permeability of plant membranes- Facilitating increased nutrient uptake via roots and foliage.
- Promotes prolific root development, stronger, faster growing plants.
- Improved sugar contents of fruits and vegetables.
- Natural chelating capacity: Humeco Power increases the plant availability of all elements.
- Improved enzyme production-Plant enzymes are stimulated to produce more rapid growth.
- Improved seed germination rate and germination time.
- Increased aeration-Root development is improved accordingly.

Application Schedule:

- **To prevent sodium damage:** use 500 gm Humeco Power per irrigation
- **Vegetables:** 1-2 Kg/acre @1 Kg at planting and 1Kg after one month with fertilizer application.
- **Cereals:** 1 Kg at planting and 1Kg along with each application of fertilizer.
- **Fruits:** 10 Kg/year in 2-3 splits as per fruiting and vegetative cycles along with fertilizer dosages.
- **Ornamental/Flowers:** 1 Kg /acre per month.

Manufactured by :

Cam-Ferti, S.L Spain

Cam-Ferti, S.L.Spain

SEA RICH

Introduction:

Brown seaweed Ascophyllum Nodosum is renowned for the growth promoting properties all over the world. It is rich in Carbohydrates, 58 minerals and amino acids. Carbohydrates in the form of Polysaccharides, Algenic acid, Mannitol, Laminarin and Fucoidin constitute about 55 % of the products

Manufactured from 100% Ascophyllum Nodosum harvested from cold North Atlantic Ocean off the coast of Ireland.

Composition:

48% extract of Ascophyllum Nodosum (Manufactured from 100% Ascophyllum Nodosum, Harvested from cold North Atlantic Ocean off the coast of Ireland)

Dissolved solids	48% i.e. 480-500 gm/Lit
Organic Matter	18.56 -24.00 %
Inorganic Matter	24-29.50 %
Carbohydrates (Includes Polysaccharides, Alginic Acid, Mannitol, Laminarin, Fucoidan and undefined sugars)	25-27%
Potash (K2O)	8%
Free AA	1.90%
TE (PPM)	58 Number
Density (Sp. gravity)	1.25 g/cc
pH	8.5-9.5
Colour	Natural Black

SEA RICH-Benefits: Soil Application

- Profuse white root development.
- Improved uptake of Major and micronutrients.
- The polysaccharides promote vigorous growth of microorganism, which results in improved soil and plant health.
- Natural chelation of nutrients, which means that nutrients more available to plants over a period of time.

Image: Ascophyllum Nodosum

SEA RICH-Benefits: Foliar Application

- More flowering, less drop and better quality of fruits
- Better uniformity of fruit / vegetable size results into more marketable yields.
- Excellent tolerance of plants to stress such as extreme cold, extreme heat, drought etc.
- Larger & thicker leaf size and dark green color of leaf increases photosynthesis, and thus increases yields and quality.
- Better Colour, more Brix, better keeping quality
- Improved plant health and disease resistance

Application Rate: See application schedule

Crop	Drip (ml/acre)	Foliar (ml/acre)
Mango	-	25 (ml/plant)
Grapes	600	400
Banana	600	-
Pomogrenate,Orange,Citrus	600	400
Cabbage,Tomato, Brinjals, okra	600	400
Water Melon, Strawberry	600	400
Potato,Onion,Garlic	600	400
Flowers (Rose, Jarbera, Carnetion, Gladious)	600	400

Manufactured by:

Brandon Products Ltd, Ireland

Imported, Packed & Marketed by:
Eco Agro Sciences LLP
Pune

Product of IRELAND

Sea Vita

- It is an organic bio-stimulant and bio-nutritional solution exclusively derived from hand-harvested Ascophyllum Nodosum grown in the cold intertidal zone of Atlantic Ocean, off the coast of Ireland.
- Sea Vita is manufactured from 100% Ascophyllum Nodosum using advanced genomic techniques and proprietary manufacturing process to preserve and enhance the bioactive molecules present in seaweed.
- Sea Vita is a complex nutritional product containing an amino acid, carbohydrates such as Polysaccharides, polyphenols, Alginic Acid, Mannitol, Laminarin, Fucoidan, Organic acids, Betaines and undefined sugars as well as micronutrients in traces.
- Sea Vita is powered by PSI, which utilizes plant signals to switch On/Off gene expression to mitigate Abiotic stress and stimulate plant growth.

Sea Vita Composition:

Contents	w/v
Ascophyllum Nodosum Extract	24%
Free Amino Acids	0.95%
Alginic Acid	3%
Fucoidan	3%
Mannitol	1.5%
Organic matter	12%
Inorganic Matter	12%
58 trace elements	In ppm
Density (g/L)	1.1
pH	8.5 - 9


Image: Ascophyllum Nodosum

Carbohydrates (Includes Polysaccharides, Alginic Acid, Mannitol, Laminarin, Fucoidan and undefined sugars)

Benefits: Soil application

- Profuse white root development.
- Improved uptake of Major and micronutrients.
- The polysaccharides promote vigorous growth of microorganism, which results in improved soil and plant health.
- Natural chelation of nutrients, which means that nutrients more available to plants over a period of time.

Benefits: Foliar application

- More flowering, less drop and better quality of fruits
- Better uniformity of fruit/vegetable size results into more marketable yields
- Excellent tolerance of plants to stress such as extreme cold, extreme heat, drought etc.
- Larger & thicker leaf size and dark green colour of leaf increase photosynthesis, and thus increases yields and quality.
- Better Colour, more Brix, better keeping quality
- Improved plant health and disease resistance.

Sea Vita - For Foliar and Fertigation use in all crops:

Foliar Application: 2 ml/Liter of water OR 1.0 Liter /Acre

Fertigation: 1.5 Liter/ Acre.

Tank mixing/co-application: Can be tank-mixed with commonly used foliar fertilizers and pesticides.

Caution: Do not spray under hot and bright days. Avoid contact with skin and eyes. Always Use PPE. Do not empty into drains and waterways. Dispose of empty container in a safe way. Carefully rinse sprayer after use.

Storage: This product is stable under ordinary temperature. Do not expose to direct sunlight or high temperature (above 30^{o} C). Once Opened, Use the container fully. Keep away from food, drink, animal feedstuff and children.

Manufactured by:

Brandon Bioscience

Brandon Products Ltd, Ireland

eco agro

Imported, Packed & Marketed by:

Eco Agro Sciences LLP

Pune

Product of IRELAND