

BIO - STIMULANTS

# Amino Power

80% Amino Acids



CROP  
STRESS



ENERGISE  
THE PLANT

- Promotes plant growth
- Improves stress tolerance
- Helps flowering & fruiting
- Directly absorbed by plant leaves & roots

Amino Acids are some of the basic building blocks of life.

Amino Power is a plant protein hydrolysate that can be absorbed directly into the plant leaf and root system for an immediate effect. It stimulates the plant to help with:

- Preventing and /or recovering from stress caused by heat, cold, physical damage due to storms and pests.
- Increasing chlorophyll production and improving the rate of photosynthesis.
- Opening of stomata - maintaining metabolic processes (growth).
- Inducing flower function, pollen tube formation, pollen germination.
- Fruit ripening and quality.

**We recommend Amino Power as a natural plant stimulant and source of available N for all agricultural crops.**



*Research shows improvements in growth are a result of multiple bioactive components that work together.*

Active components in Amino Power:

- Modify the morphology of plant roots inducing a "nutrient acquisition response" that favours the uptake of nutrients via an increase in the absorptive surface area.
- Improve N uptake by roots. The amino acids in plant hydrolysates play a signalling role in regulating N uptake by roots.
- Improve the enzymes involved in nitrogen and carbon metabolism which increases nitrogen assimilation.
- Improve N uptake in plants as a result of increased nitrate reductase and glutamine synthetase activities.
- Have peptides that have been shown to act as signalling molecules for plant defence, growth and development.
- Contain soluble carbohydrates and phenols which play an important role in energy metabolism and oxidative stress defences.
- Improve salinity tolerance due to better nitrogen metabolism and a higher K/Na ratio and proline accumulation in leaves.
- Contain amino acids which are intermediate chelators, keeping trace metals soluble and available to the plant. Glutamic and glycine stimulate root cells to open up calcium ion channels, allowing calcium to be taken up many times faster than osmosis. Calcium uptake during temperature stress is essential.
- Stimulate desirable, naturally occurring micro-organisms such as N-fixing, P-solubilising and indoleacetic acid producing bacteria.

(Nardi 2016; Colla 2015; Calvo 2014)

# Amino Acid - plant hydrolysate

## PACK SIZES:

25kg

## DIRECTIONS FOR USE:

Amino Power is used in a wide variety of agricultural enterprises. It is suitable for use as a foliar spray and via irrigation. When mixing, fill spray tank half full with water and add the required amount of Amino Power while continuing to fill tank with water. Also add Fish Emulsion as spray oil or surfactant just before tank is full of water. Continue agitation through the spray operation. Jar tests are always recommended for tank mix compatibility.

Re-seal bag after use.

## TYPICAL ANALYSIS:

>80% amino acids (from plant protein)

## APPLICATION RATES:

### Horticultural Crops (Trees, Vines, Vegetables)

Dilute at 1 : 200 with water.

Foliar Spray: 1-2.5kg/ha

#### Trees & Vines

Apply at key growth stages:

Early growth, flowering, fruit set, fruit fill, post harvest.

#### Vegetables:

Apply every 2-3 weeks.

Each farmer's situation, processes and practices may differ and therefore necessitate corrections to ensure optimum results. Adjust rates according to production levels. Repeat as required.

Always test for compatibility and crop suitability prior to use. Seek advice for rates suited to your crop.

## CLEAN UP PROCEDURE:

Use all mixture in spray and irrigation tanks; purge tanks and lines with clean water; flush irrigation lines. Do not return mix to original container.

## STORAGE:

Store in original container away from direct sunlight and moisture. Re-seal bag after use.

## PRECAUTIONS:

Physically compatible with a wide range of commonly used products. Always mix a small quantity (jar test) and check for physical compatibility before combining with other ingredients.

When applying for the first time, or in combination with other products, a small test area should be sprayed and observed prior to the total spray.

Exceeding 1:100 concentration can create a phytotoxic reaction in concentrated form.

Do not apply as a foliar spray in conjunction with copper based products as increased activity of copper may produce unacceptable levels of phytotoxicity.

Do not apply as a foliar spray during flowering.

## WARNING:

Avoid inhaling dust. Do not swallow. Avoid contact with eyes and skin.

Wear protective clothing including dust respirator, safety glasses and gloves when using this product.



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