



Blue Pacific
MINERALS

Plant+Soil+Turf



CLEVER *by* NATURE



PERMA GRO™ ALTILIUM



SECURE VALUABLE
NUTRIENTS TO
OPTIMISE GROWTH



SOIL
STRUCTURE



SOIL
HEALTH



MOISTURE
RETENTION



PLANT GROWTH
& NUTRIENTS

PERMAGRO™ ALTILIUM is a natural mineral additive that improves soil properties (CEC), efficiency of fertilisers, and regulates the moisture content in the soil for the utilisation of pasture and forages.

Primary sectors:

- Broadacre cropping
- Agriculture
- Pasture

FEATURES:

- Improves fertiliser efficiency
- Improves water management
- Easily mixed and applied with your liquid fertiliser
- Naturally designed to optimise growth



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Why use PERMAGRO™ ALTIUM?

- Easily mixed and applied with your liquid fertiliser
- Retains nutrients such as Ammonium (NH₄) Nitrogen (N), Potassium (K), Calcium (Ca) and Magnesium (Mg) making them available to the plant
- Reduces nitrate leaching and adds to environmental protection
- Uses zeolite that is Biogro registered input for organics
- BioGro Certified Input for Organics
- Improves water retention of the soil
- Regulates moisture in the soil profile
- Permanent addition to the soil profile, does not dissolve away
- Binds toxins, heavy metals ie. lead
- Consistent size and quality

Water retention

PERMAGRO™ ALTIUM is a crystalline substance with open cavities in the form of channels which have certain sizes through which the adsorption of substances occurs. Only molecules smaller than the diameter of the channel can penetrate the lattice through these channels. It is known that the inner surface area of these channels reaches several hundred square meters per gram, making extremely effective ion exchangers.

Cation exchange capacity (CEC) for nutrient retention

The negative charge of PERMAGRO™ ALTIUM attracts positively charged cations such as NH₄, N, K, Ca and Mg where they are chemically bonded and therefore hold and release the nutrient to the plant when required.

Ammonium is the most important cation to be bound. The tiny root hairs of the plant generate acid hydrogen ions (H⁺) which exchanges with the ammonium ion bound to the lattice framework.

Permanent

With a MOHs hardness of 3, PERMAGRO™ ALTIUM aids in aeration and drainage of the soil, resists compaction and doesn't break down. PERMAGRO™ ALTIUM is a long lasting asset in the soils where it is applied.

Binds toxins

Using cation exchange PERMAGRO™ ALTIUM bonds a range of heavy metals such as manganese, zinc, nickel, iron, cobalt, copper, lithium, barium and rubidium.

USES FOR PERMAGRO™ ALTIUM

PERMAGRO™ ALTIUM is mixed with your liquid fertiliser as a suspension.

Add to the mix last by slowly introducing PERMAGRO™ while the recirculating pump is running.

WHAT IS PERMAGRO™ ALTIUM?

Bulk density	0.45 - 0.62gm / cm ³
Porosity	60%
Slurry pH	8.65 (10% aq. suspension)
CEC	100 - 120meq / 100gm
Surface area	>200m ² /gm
Pore size	~7 Angstroms
Colour	Off white
Absorbency	Water >80ml / 100gm
Hardness	~3 MOHs
Particle size	0 - 1.2mm

DOSAGE

	Dilution	Application
Agriculture	10:100	Varies by plant and soil type
Horticulture	10:100	Varies by plant and soil type

PACKAGING

25kg | 1000kg

Granule Size:
0 - 1.2mm



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ASK US ABOUT OUR AGRIFERT®
RANGE OF LIQUID FERTILISERS
TO ENHANCE THE GROWTH OF
YOUR PASTURES AND CROPS.



Blue Pacific
MINERALS

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