





# Vital Earth is a pelletised active carbon source.

Soil microbes and plants need energy from active carbon (organic matter) to thrive.

#### Vital Earth:

- Improves soil by holding moisture & nutrients
- Provides a range of plant nutrients
- Promotes soil biological activity
- Improves soil structure
- Reduces lock up of phosphorus
- Stimulates root growth & nutrient uptake
- Reduces drought stress

Convenient, cost-effective way to add active carbon to your soil!

Contains humic & fulvic acid (HFA's) which are active carbon, plus silicates.

Certified for organic farming

Suitable for use in vegetables, fruit trees & vines, including tropical fruit, pasture and broad-acre crops.

#### TRIAL WORK: consistent results

Vital Earth has been used in a range of crops including baby leaf spinach, lettuce, pumpkins, potatoes, vines, fruit trees and cereals. Excellent results have been achieved in a range of soils including sandy soils and red (high reactive) soils.

## **Lettuce Results**

Variety - Iceberg Raider

Application Rate - 140kg/ha

Sandy soil - summer planting (high temperatures; included 4-5 days in mid 40's)

Leaf tip burn was reduced dramatically, with pack out increased from 80% to 95%.

# Baby leaf spinach

Sandy soil.

Application Rate - 200kg/ha

Yield Results: average 9.2% increase with Vital Earth.

Demo #	Control	Vital Earth	% Increase	Units
1	1.63	1.76	8.05	kg/sqm
2	1.61	1.73	7.5%	kg/sqm
3	109	121	11.0%	kg
4	117	129	10.3%	kg

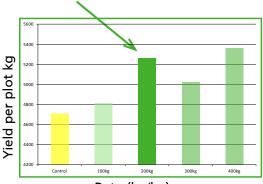


Improved root growth with Vital Earth

# **Pumpkin**

Sandy soil with pH of 8.

Recommended rate of 200kg/ha is the most costeffective.



# Cost-effective active carbon source

Vital Earth pellets are made in Australia from peat. They are ideal for incorporating into soil at planting (broad cast or in-furrow), spread into trees and vines (temperate & tropical), or blended with solid fertiliser. Vital Earth is designed to improve soil health by improving soil nutrient retention, water holding capacity, buffering salinity and providing a food source for soil microbes.

# **ANALYSIS** (average):

40% humic and fulvic acids (with potassium)

37.9% silicates

Ca-0.22% Fe-2.43% Mg-0.54% S-0.39% K-3.44% Cu-17ppm Co-7.7ppm Mn-52ppm Mo-1.05ppm Na-0.34% P-150ppm Se-0.81ppm Zn-11.5ppm

#### **PACK SIZES:**

25kg, 500kg bulk bags

#### **DIRECTIONS FOR USE:**

Vital Earth Pellets are used in a wide range of agricultural enterprises to improve nutrient and moisture retention to soil. It is particularly useful when blended with granular and pelletised fertiliser and incorporated into soil.

Used with a standard fertiliser program.

Suitable for broadcasting, banding and blending with fertiliser.

Applied through standard seeding and spreading equipment.

#### **APPLICATION RATES:**

#### Vegetables:

Apply 50-200kg/ha broadcast or in-furrow.

Fruit Trees & Vines:

50-200kg/ha applied early in growing season; including tropical fruit.

Broad-acre crops and pastures:

5-10kg/ha.

Blend with Fertiliser:

10-50kg/ha

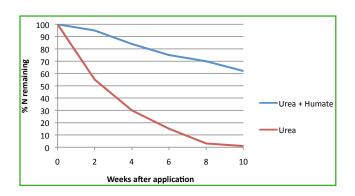
## **STORAGE:**

Store in original container away from direct sunlight and moisture.

# We recommend using active carbon every time you fertilise to:

1) Improve the use of N in the soil or the leaf

Adding active carbon to nitrogen holds ammonium-N in the root zone, reducing leaching and volatilisation. It also buffers N (UAN) in the soil, improving uptake. Typically fertiliser efficiency improved by 20% (Kasim 2011).



The graph shows nitrogen loss from soil is reduced dramatically when applied with humate. (Data courtesy Mr John Fergusson – The Best on Earth).

2) Provide the most active component of soil organic matter in a concentrated & economical form (Celik 2011).

Good soils contains on average 1% Humus so soils don't need much to make a difference. This is why Vital Earth (active carbon) is such a cost-effective soil amendment.

3) Improve nutrient and moisture retention

Active carbon improves soil structure. In sandy soils humates provide a charged surface to hold nutrients and water while in clay soils humates separate the clay particles so water and nutrients can penetrate more easily.

3) Buffer harsh aspects of fertiliser

Soluble fertilisers, particularly highly acidic or alkaline fertilisers, can have a harsh effect on soil biology. Research has shown active carbon applied with fertiliser keeps soil microbes working (Imfeld 2012).



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