

## SOIL HEALTH

# Vital Earth

## Premium Soil Amendment



ACTIVE CARBON



WATER SAVER



MICROBIAL ACTIVITY & DIVERSITY

### 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

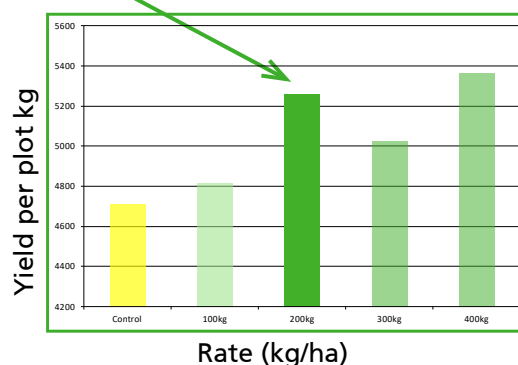
### Pumpkin

Sandy soil: pH of 8

Soil Prep: Oats green manure crop

Fertiliser: 1 tonne/ha pelletised manure

Recommended rate of 200kg/ha is the most cost effective.



## 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

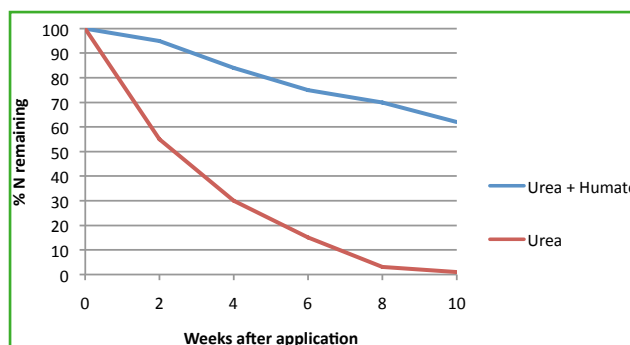
### STORAGE:

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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