

Improving Your Soil Structure

VitaLife's range of bacteria-based growth enhancers have been trialled extensively in Australia and South East Asia. The results show significant improvement in both productivity and plant disease resistance.



What Is It?

VitaLife Carbon is the basis of Fertilizer New Zealand's VitaLife range of products that include VitaLife Magnesium, VitaLife Magnesium Plus and VitaLife Calcium. **VitaLife Carbon** is a blend of ancient organic matter, aged organic matter and a selected range of beneficial bacteria and fungi. All VitaLife products are BioGro Certified.

How VitaLife Carbon Works

VitaLife Carbon increases the development of humus, which is the organic "glue" in the soil. Humus is formed from the breakdown of organic matter by beneficial bacteria and fungi. Organic matter contains reserves of phosphorus, nitrogen, sulphur and other nutrients. Soil organic matter also improves soil structure, heat absorption and the storage of water by the soil. Organic matter can also reduce soil erosion. These factors all improve the productivity of the soil.

Soil microbes are the main decomposers of organic matter. They help to turn over the organic matter in the soil and cycle nutrients contained in this organic matter, increasing plants' absorption of nutrients, especially phosphorous and nitrogen, and immobile elements (such as zinc, copper and molybdenum, and the ammonium ion). Nutrient absorption is increased by the microbes' ability to change some nutrients into forms that plants can use, and by helping plants use nutrients that are tied up in soil organic matter. Nutrients are released from the microbes when they die or are eaten by other soil animals.

VitaLife Carbon is an excellent medium for the growth of beneficial fungi. Specific fungi have been included to enhance plant growth by improving access to nutrients and water, delivering organic nutrients sequestered from the soil, and attracting and sustaining populations of beneficial bacteria. Other species of fungi have been included to target a broad range of plant pathogens both above and below the soil surface. **VitaLife Carbon** also contains a range of beneficial bacteria including plant growth enhancing bacteria that strengthen plant cell walls to improve water retention and increase disease resistance. Specific bacteria have been included to fix nitrogen and phosphorus from the environment.

Fertilizer New Zealand also supply a range of BioGro certified products from liquid and solid fertilisers to compost and septic tank activators.



What's In VitaLife Carbon?

VitaLife Carbon restores the soil while at the same time, protects against harmful elements.

The net result is improved plant growth. The ingredients in **VitaLife Carbon** are the key:

✓ Beneficial Fungi:

- control pathogens by directly attacking them above and below the surface of the soil.
- work in a symbiotic relationship with plants and increase the reach and surface area of plant roots improving access to nutrients and water.
- provide an environment for populations of beneficial bacteria.

✓ Beneficial Bacteria:

- promote plant disease resistance and water retention.
- target specific pests to reduce plant stress and damage.
- fix nitrogen and phosphorus from the environment.

✓ Organic Matter :

- improves soil structure, heat absorption and water storage.
- provides reserves of essential elements including phosphorus, nitrogen, sulphur, calcium, magnesium, potassium and manganese.
- provides an excellent medium for the growth of beneficial fungi and bacteria.

To talk to our fertiliser experts call 0800 337 869

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