

# BACTIVATE<sup>®</sup>

## COMPOST ACCELERANT

Effective composting requires the precise balance of temperature, moisture and microbial activity. Nature provides all of these components to regenerate complex organic material into smaller units usable by the soil.

Bactivate Compost Accelerant is a unique compost accelerant derived by highly purified humates, beneficial bacteria and natural amino acid complex. Essential nutrients and sugars are added to provide a complete composting package.

There are thousands of tiny organisms that are involved in the compost process, including fungi, microbes and actinomycetes. A good compost heap is one in which all of the material is broken down relatively quickly, with reduced odours; is hygienic (has destroyed all pathogens), does not contain viable seeds from weed plants, emits lower greenhouse gases while breaking down, and retains the highest possible amount of nutrients for later use as fertiliser. Composting is an essential part of reducing household wastes. It can be done inexpensively by every household and produces a product - finished compost or humus - that can benefit the environment as a natural fertiliser for gardening and farming. During composting, micro-organisms from the soil eat the organic (carbon containing) waste and break it down into its simplest parts. This produces a fiber-rich carbon containing humus with inorganic nutrients like nitrogen, phosphorus and potassium. The micro-organisms break the material down through aerobic respiration, and require oxygen that they get from the air you introduce when you turn the material in the compost bin.



### Why use Bactivate Compost Accelerant?

- Effectively addresses all of the issues required for fast and effective composting.
- Turbo-charges nature's process.
- Emits lower greenhouse gases while breaking down and retains the highest possible amount of nutrients for later use as fertiliser.
- Essential nutrients and additional rich sugars are added to provide a complete composting package.
- Reduces odour, increases hygiene.
- Finished compost has the advantage of being a natural fertiliser that is environmentally friendly.
- Treats solid waste so that it can be safely stored, handled and applied to the environment.
- Can benefit the environment by being a natural fertiliser for gardening and farming.
- Unique compost accelerant derived from highly purified families of humates and concentrated synergistic bacteria.



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### Product Analysis

Bactivate CA Biological Analysis:

Item
Bacillus subtilis
Bacillus megaterium
Bacillus Amyloliquefaciens
Bacillus licheniformis
Bacillus polymyxa

### Organisms in the Bactivate Product Range

Organism	Scientifically supported function <sup>1</sup>
Bacillus subtilis <sup>1</sup>	Shown to alleviate stress generated by soil salinity; solubilising soil inorganic phosphate; and remove soil organic contamination. It is able to combat the impact of pathogens by releasing a number of natural enzymes and antibiotics.
Bacillus megaterium <sup>2,3,4</sup>	Highly efficient phosphate solubilising bacteria that secrete organic acids that can mobilise insoluble nutrients like phosphorus. Active in soil matter breakdown and turnover.
Bacillus Amyloliquefaciens <sup>1</sup>	Nitrogen fixing and root colonising bacteria. Takes action against bacterial and fungi pathogens by out competing unwanted pathogens
Bacillus licheniformis <sup>2,4</sup>	Nitrogen fixers. Solubilises Phosphorus.
Bacillus polymyxa <sup>1,5</sup>	Bio control agent against pathogens. Presents a broad spectrum antimicrobial activity especially against bacteria and fungi. Bio treatment for removal of pollutants or contaminants from soil.

1. Search data obtained from the Web of knowledge.
2. The organism can synthesize phytohormones particularly auxins and cytokinins to stimulate plant growth. In such studies plant seeds were subjected to bacterization.
3. Organisms are considered as 3rd class bio-additives, consisting of products of microbiological synthesis. 1st class of bio-additives are easy assimilating substances of biogenic microelements and the basic nutrient elements (N, P, and K). The 2nd class bio-additives are constructed on the basis of plant growth promoter factors and cell stimulators (Vinaro and Dirina, 2007).
4. Study of inoculation of the bacterium in soil showed the plant growth stimulation effect can be explained not only by their N<sub>2</sub>-fixation and/or P-solubilization ability but also by their production of hormone-like secondary metabolites (Cakmakci et al., 2007).
5. Bacillus polymyxa is famous for its production of antimicrobial lipopeptides polymyxins, which were described as early as the 1940s and demonstrated to have very strong growth inhibitory activity against Gram-negative bacteria (Storm et al., 1977).

### Application Rate

Small Compost	Apply 20-50ml concentrate to 1-5L of water per 100L of compost. Always Dilute First.
Large Compost	Apply 200-500ml concentrate to 1-5L of water per 1 m <sup>2</sup> of compost. Always Dilute First.



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For more information on Bactivate Program  
or our range of supplementary products, please contact:  
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[www.bactivate.com.au](http://www.bactivate.com.au)

Dedicated to Growing your Bottom Line