



Rejuvenate soil.  
Improve profitability.





“Essentially, all life depends upon the soil ... There can be no life without soil and no soil without life; they evolve together.”





TM Agricultural rejuvenates soil and restores it to a fertile state.



## TM Agricultural

Tested for over a decade in numerous government and university research studies TM is proven to increase soil health. TM Agricultural is used in all states of Australia and New Zealand. It is used in a wide range of agriculture, horticulture and viticulture industries.

TM Agricultural is a soil ameliorant in a liquid form designed to kick start and increase beneficial biological activity in the soil. TM Agricultural is in a class of its own using “trigger” technology developed right from our own laboratories to activate the native biology in all soil types.

Soil biology is responsible for recycling nutrients, converting elements including phosphorus and atmospheric nitrogen into forms that are plant available and breaking down both man-made and natural toxins. Common observations of TM Agricultural is loose aerated soil with high oxygen levels which means better water absorption and holding capacities and deeper root systems.

Healthy soils enable the inputs being used to be much more effective with greater efficiencies. Our goals at Best are to help you, the producer to grow healthy, high quality produce with reduced inputs, less risk and higher profits.





## What is TM Agricultural

Soil scientists around the world generally agree that soil biology is the “engine room of the soil.” Soil biology is responsible for recycling nutrients, converting elements including atmospheric nitrogen and stable but unavailable forms of phosphorus into forms that are plant available, breaking down toxins, both man-made and natural. These biological processes sustain life as we know it.

TM Ag is an organic registered soil ameliorant designed to kick-start and increase beneficial biological activity in the soil, beginning with the bacteria and fungi that all other soil life depends on. Although TM contains natural trace nutrients, its primary aim is to stimulate the vast array of indigenous soil organisms to do their work.

## What can Best offer farmers using conventional products?

With Best products, farmers can expect to reduce their dependence on chemicals, especially many of the insecticide and fungicides used regularly in conventional farming. Substantial reductions in the need for synthetic fertiliser are also commonly reported.

Improved crop quality with fewer screenings or second grades, improved pasture quality and a reduction in nutrients leached to groundwater are benefits consistently associated with the use of TM Ag. These improvements are achieved while maintaining or increasing crop yields and farm productivity.

## What is the science behind your products/ trial evidence/ evaluation by government bodies?

From day one Best has been involved with universities and independent trial organisations around the world, too numerous to mention here. For more information visit our website [www.bestenvirotech.com.au](http://www.bestenvirotech.com.au) Research trials are ongoing and Best is committed to verification by good science.

*TM Ag is all about low volume, low cost and excellent efficiency, giving the “Best Bang” for your \$ buck.*

## What savings does the system bring?

Best products bring many savings to farmers both quantifiable and otherwise. Generally farmers can save on chemicals, fertiliser, fuel, wear and tear on equipment, irrigation water and time.

Often, there is a noticeable correction in soil pH, with both acidic and alkaline soils moving closer to neutral. This is due to the buffering effect of increased levels of biological activity.

## Why do growers use your products? Do they just want to switch to fashionable organic systems; are they after cost savings or do they genuinely want to reduce their carbon footprint?

Farmers use our products for many different reasons. Mainly however, they see what other farmers are achieving and want to replicate those results on their own properties. They also see a way to reduce their input costs, leading to improved viability.

Most of the farmers we work with are not organic. They simply want a reliable, economical method of reducing high input costs.

## Can farmers use Best products in conjunction with natural fertilisers, composts etc.?

Definitely. Many farmers report excellent results when using TM in conjunction with more biologically friendly forms of fertiliser.

There are numerous companies producing quality fertilisers and composts with the benefit of soil biology in mind. However, the application of large quantities of material per hectare or the high cost of specialised microbial products can be a major consideration with these approaches.

Application rates of TM Ag are usually only 250 to 500 ml/ha. TM lays no claim to being a fertiliser. It is registered as an organic soil ameliorant.





## The Benefits of Healthy Soil:

- **Robust crops.**
- **Sustainable profit.**

Healthy soil leads to robust and healthy plants, reduced cost of operations, improved yield and profitability.

TM Agricultural works to rejuvenate the soil. Over the last twenty years, the ability to research at the molecular level has brought significant insight into the relationship between microbial organisms, soil health, plant health and crop yield. Best™ has engaged in this research since the 1990s to establish sustainable farming methods that lead to enhanced soil health and sustainable agricultural practices.

## The secret to healthy soil

TM Agricultural restores the interconnected relationship between the soil, micro-organisms and plants. Best has developed a simple, easy to apply process that awakens dormant soil microbes, unlocking tied up nutrients and making them plant available. The result is healthy, aerated soil, rich in nutrients and robust plants that are healthy and more resistant to disease and pests.

TM Agricultural is an environmentally safe technology that helps restore and rejuvenate the soil to a fertile state.

## Benefits of healthy soil:

- Rich in organic matter.
- Higher crop yield.
- Soil rich in nutrients and, robust crops that are less susceptible to disease and pests.
- Reduced costs for fungicides and pesticides
- Greater water absorption and moisture retention.
- Soil that is less susceptible to erosion and runoff.
- Aerated soil that is not compacted and hard. This reduces fuel costs and wear and tear on machinery.

Yesterday's farmer was concerned only with crop yield.

Today's farmer focuses on soil health and long-term profitability.





## The Cost of Unhealthy Soil:

- **Crops susceptible to pests and disease.**
- **Decreased profitability.**

The overuse of chemical fertilizers strip the soil of important bacteria and microbial organisms. This leads to nutrient deficient, compacted soil, an unhealthy environment for plants and reduced profits.

**We do not inherit the earth from our ancestors; we borrow it from our children.**

*"Native proverb"*

The twentieth century had to solve the challenge of providing a safe and secure food supply to over six billion people. Increasing competition for prime agricultural land due to urban development added a further complication: a need for high-yield crops in limited space.

Chemical fertilizers became the solution and the norm in latter 20th century agricultural practice.

Unfortunately repeated, overuse of chemical fertilizers to increase yield strips the soil of fundamental organisms and nutrients. This disrupts the balanced relationship between soil, plant and the ecosystem leading to decreased soil fertility. Soil becomes hard and compacted, unable to retain moisture or sustain healthy plant growth.

As the soil becomes depleted, it creates a positive environment for disease and pests, putting already weakened plants even more at risk. To sustain yields, more chemical fertilizer, fungicides and pesticides are needed, creating a costly cycle of soil nutrient depletion and fertilizer dependence.



## Costs of unhealthy and compacted soil:

- Weak plants that are susceptible to disease and pests, increasing the dependence on and cost of fungicides and pesticides.
- Soil that is deficient in nutrients, which leads to the increased dependence on, and cost of fertilizer.
- Soil that is hard and compacted is difficult to till. This leads to increased cost of fuel, and wear and tear on machinery.
- Compacted soil does not absorb or retain water, which increases the need for water and cost of energy for irrigation.
- Depleted soil is susceptible to erosion, leading to decreased yield, and unreliable future profitability of land investment.
- Weak unhealthy plants attracting higher likelihood of pests
- Decreased crop yield and profitability

In the short term, chemical fertilizers increase yield.

However, in the long term the use of fertilizer strips the soil of essential organisms and nutrients. This increases the cost of inputs and reduces profit.





BEST Environmental Technologies have applied TM Agricultural (a biological activator) to split paddocks on a wide variety of soils in different climatic zones under different land uses including dairy, dry stock, cereal cropping, beans, cotton, tea, and forestry etc.

## Characteristics of TM Agricultural

From the information and observations made to-date, TM Ag would appear to have the following characteristics:

- Increases microbial diversity and activity
- Promotes plant growth
- Promotes the root system
- Decreases the susceptibility to insect/pest attack
- Reduces the use of insecticides, pesticides and fungicides
- Helps to buffer and improve the efficiency of herbicides/insecticides/fungicide sprays
- Promotes N fixing leguminous nodules and probably free-living N fixing bacteria
- Improves the efficiency of nutrient uptake
- Acts as a nutrient regulator – for example reducing high sodium levels
- Helps to neutralise acidic soils
- Acts as a soil conditioner – improves soil structure, porosity, colour and air capacity of the soil
- Promotes crop vigour and persistence
- Increases soil carbon
- Decreases water repellency (soil hydrophobicity)
- Reduces the susceptibility of crops and pastures to frost damage

Collectively, the above characteristics provide farmers and agricultural consultants with a powerful tool to significantly lift on-farm performance while at the same time decreasing the farm's environmental footprint, both in terms of reducing nutrient loss, greenhouse gas emissions and sequestering soil carbon.

*Graham Shepherd  
Soil Scientist/Agricultural Advisor  
BioAgriNomics Ltd*





# TM Agricultural Application Guidelines for Agriculture

TM Agricultural is made from all natural sources and remains in a natural state. There are no chemicals used in the manufacturing of TM Ag. TM Ag can be applied safely to all vegetation and on all soil types.

TM Ag should be applied with a minimum of 30L/ha water or more when used with ground spraying equipment.

Rainfall increases the benefits of TM Ag once the product is in the soil or on the plant. The use of non-chlorinated water is recommended.

## Timing of application for field crops:

### a) Cereals, Pulses, and Oilseeds

#### First Application: 250ml/ha

- For best results apply to soil 2 to 8 weeks prior to planting with adequate soil moisture, especially on non-wetting soils.
- Can be tank mixed with most herbicides, insecticides and fertilizers. Use 30L/ha of water or greater.
- Can be used as a seed pickle, 250ml will treat enough seed to plant 1 ha. Using at least 20 parts water to 1 part TM Ag. Use seed in 72 hrs or less. Do not mix with a fungicide.
- Can be injected into seed row with water or with fertilizer at 250ml/ha

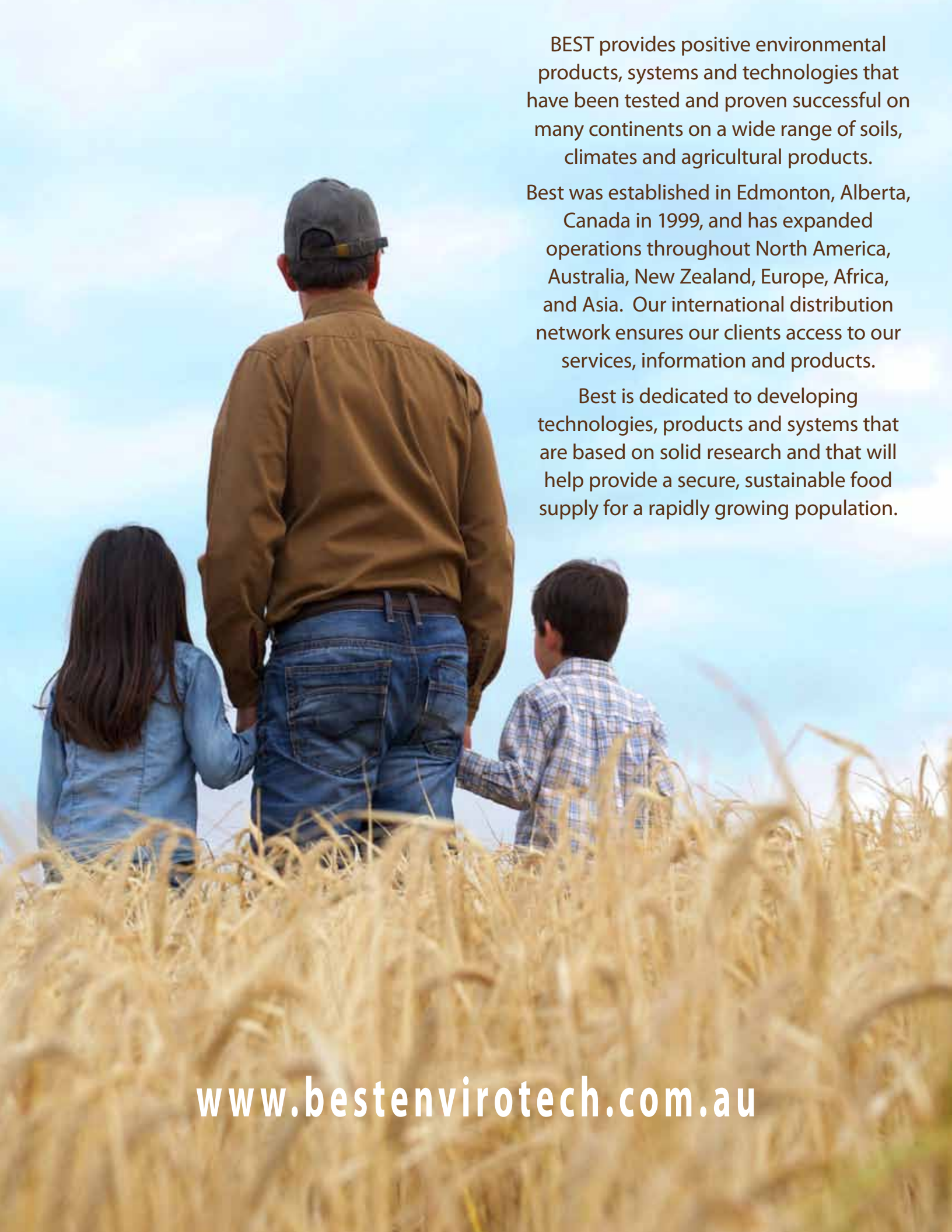
## Second application: 250ml/ha

Is done in crop with herbicide application, TM Ag can be safely mixed with most herbicides and insecticides. Use 30L/ha of water or greater.

### b) Forage Crops and Pasture

- TM Ag can be applied after cutting or grazing at a rate of 250ml/hectare mixed with water. A second application can be made after the next cutting or grazing is complete.
- Excellent results have been achieved when applying TM Ag during a rain event.
- TM Ag has no withholding period for animals as it is a natural product.

**Do not tank mix TM Ag with fungicides**



BEST provides positive environmental products, systems and technologies that have been tested and proven successful on many continents on a wide range of soils, climates and agricultural products.

Best was established in Edmonton, Alberta, Canada in 1999, and has expanded operations throughout North America, Australia, New Zealand, Europe, Africa, and Asia. Our international distribution network ensures our clients access to our services, information and products.

Best is dedicated to developing technologies, products and systems that are based on solid research and that will help provide a secure, sustainable food supply for a rapidly growing population.

[www.bestenvirotech.com.au](http://www.bestenvirotech.com.au)