SL TEC®

FERTILIZERS

Quality Ingredients
Australian Made
Family Owned

Nutrient Solutions

SUSTAIN&GRO®

Product Advisory

Renew - Enhance - Stimulate
Plant and Soil Health

sltec.com.au

Why Choose SLTEC® Fertilizers?

SLTEC® Fertilizers is a leading manufacturer of fluid fertilisers, based in Northern Victoria

Our Promise

Quality

SLTEC® Fertilizers is committed to supplying consistently high quality products.

Investment

SLTEC® Fertilizers will ensure that your fertiliser inputs maximise the return on your investment.

Service

SLTEC® Fertilizers will provide professional, logistical and agronomic support to ensure a sustainable relationship.

Read our quality assurance policy online at **sltec.com.au/quality**

Why use Fluid Fertiliser?

- Efficient and highly plant available
- Can deliver many nutrients with a single application
- Small and frequent applications reduce leaching and runoff
- Foliar and fertigation options allow flexible application timing unlike relying on broadcast application
- Consistency of product and uniform application across the soil
- Nutrients infiltrate to the root zone where maximum uptake is achieved
- Foliar application particularly of trace elements avoids tie up in the soil
- Can be mixed with a range of farm chemicals
- Labour savings and improved workplace safety

SLTEC® Commitment to Quality

Can your fertiliser supplier give you this sort of quality assurance?

SLTEC® is committed to delivering quality products and services. We continue to put a tremendous effort into ensuring that our products meet the tightest quality parameters.

- We carefully select the ingredients we use in our formulations from suppliers all over the globe.
- We routinely seek independent laboratory testing to confirm the levels of all nutrients listed on our product labels. We also regularly test for heavy metals or other contamination.
- Our blends are developed by our formulation chemist, who has now developed over 400 different blends, some of which have been servicing very sensitive crops in hygienically clean glass house environments.
- We invest annually in formulation research and advanced chemistries for the fluid fertiliser and industrial water treatment sectors.
- Our team has specialized formulation software that aids the development of each blend, from basic chemistry building blocks into complex and sophisticated formulations for applications such as hydroponics, foliar fertiliser, fertigation, water treatment etc.
- Our batching and mixing systems are calibrated every 6 months by an external certifying body.
- Each batch must meet a variety of tests and quality specifications before being released for dispatch.
- Our labels state accurately the nutrient content of each blend and comply fully with state and federal legislation and the Fertilizer Australia Labelling Code of Practice.
- We retain samples of each and every blend made with a unique batch number, enabling traceability of batches.
- Our staff are qualified and thoroughly trained to ensure our products and services remain at the highest standards of excellence.

In summary, quality is an absolutely essential component of the culture and processes at SLTEC® and we pride ourselves on it. Development, manufacture, storage, labelling and transport of our products is carried out in a manner that aims to provide our customers with the assurance that the products they receive are of the highest quality, ready to use and will deliver the outcomes desired.

Further information on our quality policy is available on our website.

The Journey So Far

Our Journey with Sustain & Gro® So Far...

Since the green revolution (post World War II), agriculture has benefited from many advances in chemical technologies and derived ingredients. Agricultural soils have been enriched chemically with industrial fertilisers and pesticides, resulting in increased productivity. However, with increased chemical inputs, the biological health (e.g. the soil food web) and natural balance of these soils have in many cases declined.

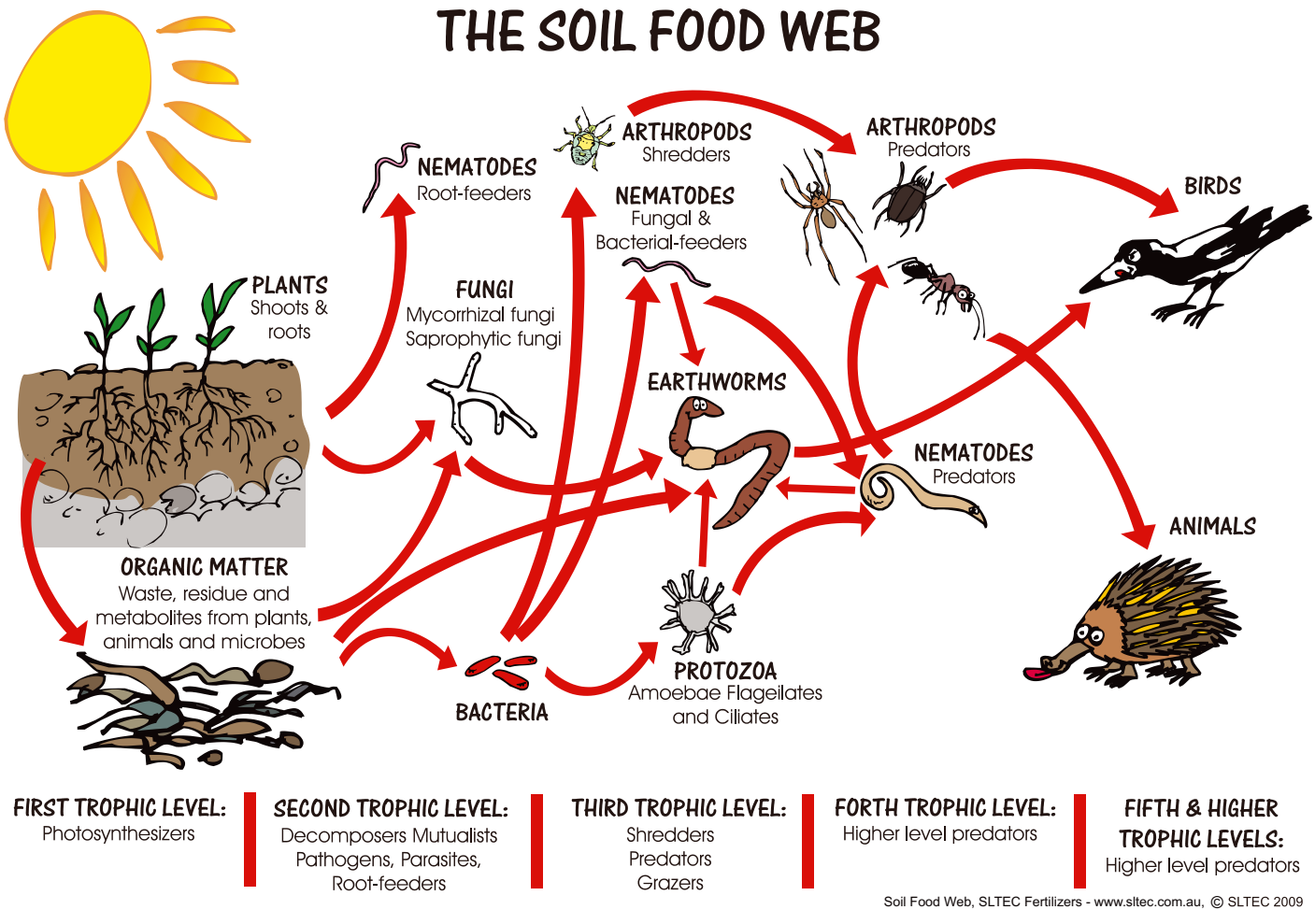
Sustainable soils have a balance of chemical, microbial and physical properties. Our operational practices can impact this natural balance either positively or negatively.

Production systems with a sterile environment, void from beneficial soil and plant biology, remain vulnerable to disease and insect pressure. They lack many of the non-chemical attributes important for sustainable production.

Given that most fertiliser and soil amendment inputs used today are derived predominately from industrial chemical processes, we are developing and expanding the Sustain & Gro® product range to provide credible softer alternatives. Sustain & Gro® products are designed to stimulate soil biology and improve soil structure.

Our development of Sustain & Gro® products has only just begun.

In the future, we aim to deliver a range of renewable, sustainable and in some cases, organically certified inputs.



Soil Food Web, SLTEC Fertilizers - www.sltec.com.au, © SLTEC 2009

Product Information

The Sustain & Gro® products provide a family of inputs designed to stimulate and improve plant and soil health, providing naturally available goodness and organic sustenance.

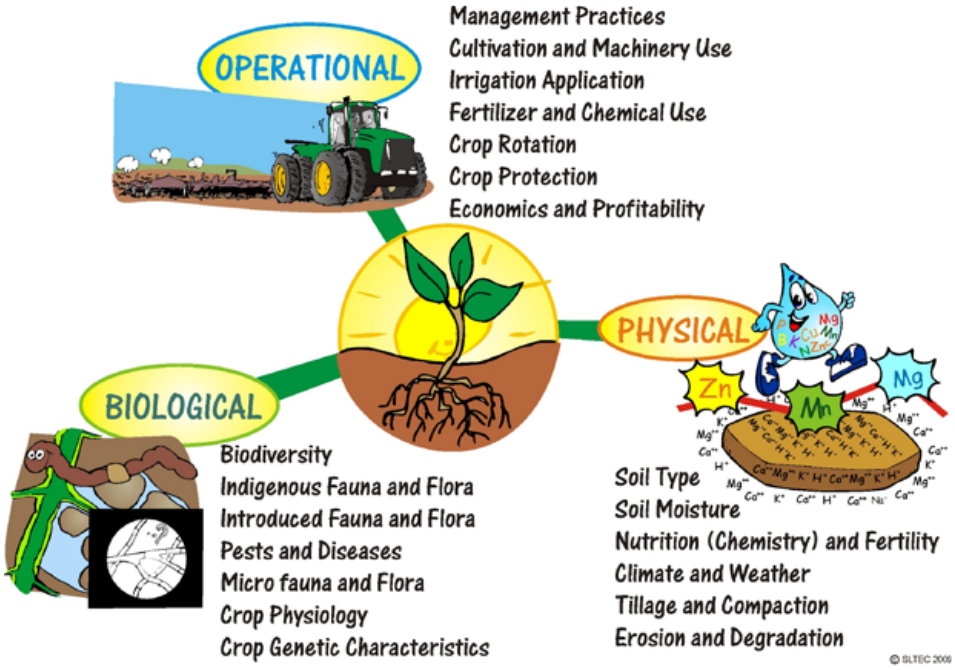
Overview:
Sustain & Gro® products have a beneficial role in a wide range of situations and applications (e.g. crops, pasture, turf, gardens etc). They provide both nutrients and organic stimulants suitable for enhancing beneficial plant and soil microbiology (such as bacteria, fungi & protozoa).

Sustain & Gro® products are recommended for use in combination with the implementation of sustainable principles and best practice.

Several of these products contain organic materials that will stimulate enhanced microbial activity. However, there is no substitute for land management practices that directly raise organic carbon levels (e.g. cover crops, mulches, composted manures). Organic matter fuels the soil food web and needs to be carefully maintained to provide the basis for healthy and sustainable soils.

Sustain & Gro® products should be utilised strategically "in combination" with the above practices and informed agronomy advice to deliver sustainable outcomes for landholders.

Sustain & Gro® products can be applied using fertigation, directed soil sprays via injection through tyned implements or as foliar sprays (for selected products).



Sustain & Gro® Benefits

- Carefully selected and blended raw ingredients
- Guaranteed analysis
- Formulated using quality systems and processes
- Custom blends available
- Sustain & Gro® products can be blended with a variety of SLTEC® products – check compatibility information

Organic Ingredients: Inputs are sourced from renewable and sustainable resources that have an organic origin.

Renewable: Products derived from recycled materials and ingredients. A natural resource qualifies as a renewable resource if it is replenished by natural processes at a rate comparable or faster than its rate of consumption, hence being replenished within a reasonable amount of time.

Sustainable Inputs: Inputs that maintain and/or enhance the sustainability of production and living systems.

Sustainable Agricultural Production:
Practices that maintain or improve;
- Productivity and economic viability
- The natural resource base
- The impact agriculture has on other ecosystems

Product Options

Sustain & Gro® Products

Code	Product Name	Fulvic Acid	Fish Emulsion	Humic Acid	Kelp	Molasses	Specific Gravity (kg/L)	pH Range	Typical Application Rates	
									Fertigation	Foliar Use 200 to 2,000 L/ha water
GG0182	**Nature's K™** N 0.6%, P 1.8%, K 10.0%, S 2.6%, C 0.6%, **Amino Acids 2.1%**	2.1	-	-	-	-	1.160	8.5 - 10.0	40 - 300 L/ha	5 - 10 L/ha
SG0039	**QuadSHOT®** N 0.4%, P 0.1%, K 3.4%, S 0.2%, Ca 0.2%, C 5.2%, Fe 0.006% Certified Allowed Input ACO CERT. NO. 11936	0.3	8.0	6.6	8.0	8.0	1.154	10.0 - 11.0	20 - 60 L/ha	1 - 20 L/ha
SG0020	**QuadSHOT® & Z Mo** N 0.2%, P 1.9%, K 2.1%, S 1.0%, **Zn 1.8%, Mo 0.05%**, Fe 0.02%, C 3.8%	0.2	5.8	4.8	5.8	5.8	1.147	3.0 - 4.0	N/A	1 - 5 L/ha
SG0001	**TripleSHOT®** N 0.3%, P 1.6%, K 2.8%, S 0.1%, Fe 0.03%, C 2.9%, Si 0.1%	0.3	8.0	6.6	8.0	-	1.126	3.0 - 3.5	20 - 60 L/ha	1 - 5 L/ha
SG0003	**Bio Kelp 20™** N 0.1%, P 0.1%, K 2.8%, S 0.2%, C 4.0%	-	-	-	20.0	-	1.085	8.5 - 9.5	5 - 20 L/ha	2 - 10 L/ha
SG0019	**Bio Kelp & Z Mo™** P 0.8%, K 3.1%, **Zn 3.0%, Mo 0.05%**	-	-	-	16.4	-	1.153	3.0 - 4.0	N/A	1 - 5 L/ha
SG0017	**BiologiCAL® PLUS** N 0.3%, P 0.1%, K 2.0%, S 1.8%, **Ca 6.5%**, B 0.1%, C 12.5%	0.009	0.3	0.2	0.3	41.8	1.281	8.0 - 10.0	20 - 60 L/ha	1 - 40 L/ha
SG0031	**BiologiCAL® PLUS TE** N 1.1%, P 0.1%, K 1.8%, S 1.7%, **Ca 5.9%, Mn 0.5%, Zn 1.0%, Cu 0.3%, B 0.1%, C 11.4%**	0.008	0.2	0.2	0.2	38.0	1.295	6.5 - 7.5	20 - 60 L/ha	4 - 50 L/ha
SG0012	**Fish Emulsion™** N 2.5%, P 0.3%, K 0.3%, Ca 0.5%, C 16.6%	-	100.0	-	-	-	1.050	3.5 - 3.8	5 - 20 L/ha	2 - 5 L/ha
SG0011	**Fulvic 10™** K 1.9%, C 4.5%	10.1	-	-	-	-	1.041	5.0 - 6.0	N/A	1 - 3 L/ha
SG0016	**Humic K 26™** N 0.1%, K 6.0%, Fe 0.1%, Si 0.1%	1.0	-	25.0	-	-	1.100	9.5 - 11.0	2 - 20 L/ha	N/A
SG0042	**Kelp Boost™** N 0.4%, P 0.7%, K 6.4%, S 0.6%, C 2.3%, **Amino Acids 1.4%**	1.1	-	-	10.0	-	1.123	9.0 - 11.0	5 - 20 L/ha	2 - 10 L/ha
SG0013	**Molasses™** N 1.0%, P 0.1%, S 0.7%, Ca 1.1%, C 37.9%	-	-	-	-	100.0	1.280	5.0 - 6.0	2 - 10 L/ha	N/A
SG0043	**Relax™** P 4.3%, K 10.3%, S 0.1%, Mo 0.3%, Co 0.02%	-	-	-	10.0	-	1.193	5.0 - 7.0	2 - 10 L/ha	N/A

Liquid Lime

SG0037	**AquaLIME 38™**	Calcium: 38.0% Carbon: 11.6%	1.601	9.0 - 10.0	Contact your SLTEC® representative for specific application rate information

Microbial

SG0041	**Tri-Culture™** **Active Ingredients:** Plant Growth Promoting Rhizobacteria 20%, Bacillus licheniformis 1×10^8 cfu/ml Bacillus methylotrophicus 2×10^8 cfu/ml, Bacillus subtilis 2×10^8 cfu/ml	1.130	5.6 - 6.8	1.2 - 2.4 L/ha	N/A

pH, Soil Acidity, Lime & Gypsum

Applying lime to a soil reduces its acidity by raising the pH. It also supplies calcium. Increasing soil acidity affects plant nutrient availability, reduces the activity of beneficial bacteria that decompose organic matter and heavy metals such as aluminium and iron become more soluble, tieing up phosphorus into forms unavailable to plants, and may build up to toxic levels.

Soil should always be sampled before establishing a new planting. If lime and/or gypsum are required, incorporate it during soil preparation. It is often useful to dig a pit and to sample the subsoil to understand any potential limitations to tree growth further down the profile.

A soil sample every 3 years taken from the same locations within a block is recommended to monitor nutrient levels and to check that the pH remains satisfactory. This allows time for program changes to take effect. If lime is required apply in the Autumn.

The preferred pH before establishing a new vineyard is generally 5.5 to 6.8 depending on the soil type. Sandy or lighter soils tend to require pH toward the higher end. As a rule of thumb - apply lime to established vineyards when the pH falls below 5.5.

Use dolomitic lime (high in magnesium) on soils that are low in magnesium.

Gypsum is usually recommended on sodic and magnesic soils when pH is high and exchangeable calcium is low. High magnesium soils are often massive and hard setting (when exchangeable magnesium is greater than 15%). High sodium soils tend to be dispersive when wet and form a crust when dry (when exchangeable Sodium is greater than 5%).

Desirable Soil Exchangeable Cation Balance

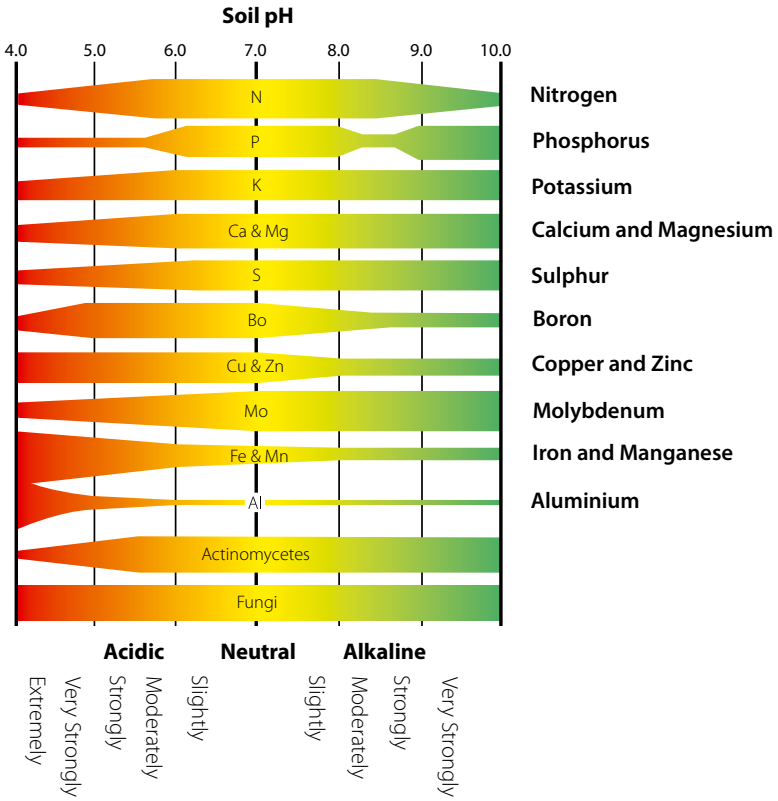
	Balance (%)
Calcium	60 - 70
Magnesium	12 - 15
Potassium	3 - 5
ESP	< 5
Hydrogen	< 20
Ca : Mg ratio	2 - 4

Typical Cation Exchange Values for Various Soil Textures

(preferred level >10 meq/100g)

Texture	Typical CEC
Sand	< 5 meq / 100g
Sandy Loam	5 - 10 meq / 100g
Clay Loam	10 - 25 meq / 100g
Light Clay	25 - 30 meq / 100g
Medium Clay	30 - 35 meq / 100g
Heavy Clay	> 35 meq / 100g

(Based on clay content only - eg: a high organic matter clay may have a CEC over 50 meq/100g)



Soil Biological Activity

Most growers now appreciate that a 'living soil' is essential for long-term productivity. Fostering soil health and building organic matter helps us retain soil moisture and nutrients and reduce inputs such as nitrogen. In a balanced soil system, our crops are more tolerant to disease and stress. Soil balance enables the production of high quality produce.

To understand soil 'health', some laboratories test for 'indicator' groups of organisms. These have important functions upon which plants and other organisms depend.

Soil is a complex ecosystem shaped by environmental factors, available resources and biology. Changes in environmental factors or available resources will affect what happens in the biological community—the greater the disturbance, the more potentially variable the results.

Active Indicator Organisms

In the presence of light **photosynthetic bacteria** like *Rhodopseudomonas spp* and *Bradyrhizobium spp* require only sunlight, carbon dioxide and mineral nutrients to grow. They are important in recycling organic matter, particularly compounds that are difficult to break down – such as pesticide and petrochemical residues. However, photosynthetic organisms can be susceptible to herbicides that disrupt photosynthetic mechanisms. They can exist to some depth in soil because they can also grow on carbon sources in the absence of light. They are also important for the synthesis of bio-active compounds such as amino acids and sugars that stimulate plant growth.

Yeasts such as *Saccharomyces spp*, *Debaryomyces spp*, *Torulopis spp* and *Rhodotrula spp* synthesise plant growth substances from amino acids and sugars that are produced by photosynthetic bacteria. These substances include hormones and enzymes that promote active cell division, root growth and promote the growth of lactic acid bacteria and *Actinomycetes spp*.

Lactic acid bacteria such as *Lactobacillus spp*, *Leuconostoc spp*, *Lactococcus spp* and *Pediococcus spp* produce lactic acid from sugars and carbohydrates. Lactic acid enhances the decomposition of lignin and cellulose. Lactic acid is a strong bio-suppressive compound that helps control harmful micro-organisms and even some nematodes. This effect, together with other trace nutrients produced by members of this group, is particularly beneficial to the growth of photosynthetic bacteria and yeasts.

Actinomycetes such as *Actinomyces spp* and *Streptomyces spp* produce antibiotic compounds that are effective suppressants of pathogenic organisms. They have also been shown to produce plant hormones – especially when treated with kelp extracts.

Fungi such as *Aspergillus spp*, *Penicillium spp*, *Mucor spp* and *Rhizopus spp* are commonly associated with moulds and rots in fresh produce. Despite this, these organisms have important beneficial effects on plant growth through their activity in the soil. These include the production of enzymes, antibiotics and various growth regulators. They are also important in the conversion of organic matter to humic substances. Some of the less complex compounds produced from this humification process are also important food sources for some bacteria.

Cellulose Utilisers like *Trichoderma spp* fungi require only minerals and cellulose for growth. These fungi break down plant remains into organic materials that are beneficial to other micro-organisms such as Protozoa. Many *Trichoderma spp* actively suppress plant pathogens.

Soil Health

Inputs that Stimulate Soil Biology

Kelp

Bio Kelp 20™ (20% Kelp)

Kelp extracts contain amino acids such as glycine and plant hormones including auxins, betaines and cytokinins which in combination stimulate plant growth. They should not be regarded as fertilisers as the nutrient levels are typically too low to have any direct value. Kelp extracts do have strong effects on soil microbes and stimulate photosynthetic bacteria and actinomycetes, which can help protect against soil-borne pathogens.

Fish Emulsion

Fish Emulsion (100% Fish Emulsion)

Fish emulsions are a source of readily available organic nitrogen and can be especially useful when needed to improve the C : N ratio in the soil. They are also beneficial in stimulating the growth and activity of many micro-organisms. The net effect is an increase in nitrogen cycling potential and a somewhat reduced requirement for nitrogen inputs for some crops and pasture. Lower application rates (2 L/ha) appear to stimulate fungi and cellulose utilisers that do not respond well to high nitrogen. Higher rates (10 L/ha) appear to promote photosynthetic bacteria and actinomycetes and suppress lactic acid bacteria.

Humate

Humic K 26™ (25% Humic Acid)

Humates are soil conditioners with high carbon content. They are valuable materials where adjustment of the C : N ratio is required. Humates are also crucial in releasing bound nutrients into plant-available forms and helping to improve soil structure at relatively low application rates. These materials produce significant biological effects with a strong suppression of lactic acid bacteria and stimulation of fungi, especially cellulose utilisers, which, as the name suggests, are important in the breakdown of cellulose and certain other resistant materials, subsequently increasing the formation of humus and helping to improve soil structure.

Molasses

Molasses (100% Molasses)

Molasses provides a readily metabolisable carbon and energy source that can be utilised by most organisms. Low rates (2 L/ha) can effectively stimulate most groups of microbes and, in particular, fermenters like lactic acid bacteria and yeasts. However, being quickly utilised will provide only a short-term benefit unless other actions have been taken to improve the soil environment.

Certified Allowed Input
ACO CERT. NO. 11936

SL TEC FERTILIZERS

Four Key Plant & Soil Microbial Stimulants
Now Organically Certified

QuadSHOT®

Product Code: SG0039

QuadSHOT® contains a carefully selected range of organic additives and biological stimulants. These ingredients stimulate soil biological activity, thereby improving the cycling and availability of plant nutrients and soil fertility and health. Together with management practices that enhance organic matter and soil structure development, this product assists in mobilising available nutrients and improving plant uptake efficiencies.

Humic acid – increases the nutrient holding capacity of the soil
Kelp – enhances plant and root growth development
Fish Emulsion – stimulates nitrogen cycling
Molasses -promotes beneficial soil biology
Each of these stimulants are also available as individual products

Benefits of QuadSHOT®

- Improves saline and sodic soils
- Improves the moisture-holding capacity of soils
- Enhances nutrient cycling and availability
- QuadSHOT® can be used to soften a range of foliar fertilisers, allowing higher use rates without the potential for phytotoxic burn - e.g. Nitro QUAD 3™ and UAS QUAD 3™
- QuadSHOT® is designed to aid in the soils mineralisation and nutrient availability. It also increases the plant's uptake efficiency of essential minerals.
- Improves overall soil health and vitality.

Guaranteed Analysis (w/v)

Fish Emulsion	**8.0%**
Kelp	**8.0%**
Molasses	**8.0%**
Humic Acid	**6.6%**
Fulvic Acid	0.3%
Nitrogen (N)	0.3%
Phosphorus (P)	0.1%
Potassium (K)	3.4%
Sulphur (S)	0.2%
Carbon (C)	5.2%
Calcium (Ca)	0.2%
Iron (Fe)	0.006%
Specific Gravity	1.154 kg/L
pH	10.0 - 11.0

Typical Application Rates

Foliar
1 to 5 L/ha
Broadacre use at least 100 L/ha water
Horticulture use 200 to 2,000 L/ha water

Fertigation
20 to 60 L/ha through sprinkler, traveller or drip systems

Pop-Up, At Planting, Directed Soil Spray
Banded with Seed: 4 to 7 L/ha
Banded to the Side: 5 to 15 L/ha
with 10 to 100 L/ha of water

20 - 60 L/ha as a directed soil spray,
prior to planting or banded under canopy,
with 200 - 800 L/ha water

Dipping Rates

Tree Age	Young	Established
Fertigation	40 L/ha	80 L/ha
Pre-Plant Dip	10 - 30 L/ha (per 100 L Water)	

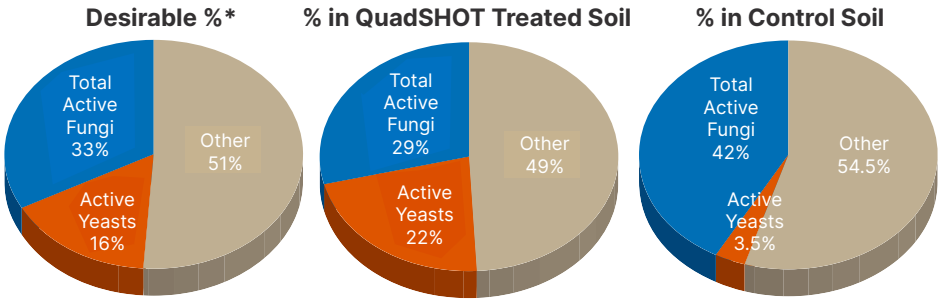
QuadSHOT® Trials – 14/15

As a part of SLTEC®'s commitment to R&D, we have initiated a range of bio-efficiency trials in major almond growing areas. Our aim is to ensure that we are not only delivering cost effective liquid fertilizer options; but also inputs and advice that assist you to improve and maintain the productivity and sustainability of your soil.

QuadSHOT® is a unique organic soil conditioner made from Kelp, Fish Emulsion, Molasses, and Humic acids. The ingredients of QuadSHOT® are combined with the aim of stimulating soil biology, improving soil health, nutrient cycling and the subsequent uptake of applied nutrients. Generally, organic/biological inputs will help to stimulate long term changes in nutrient uptake efficiency and subsequent plant health and product quality, rather than simply providing immediate increases in crop yield.

Therefore it is often a challenge to prove short term results arising from applications of these types of organic inputs.

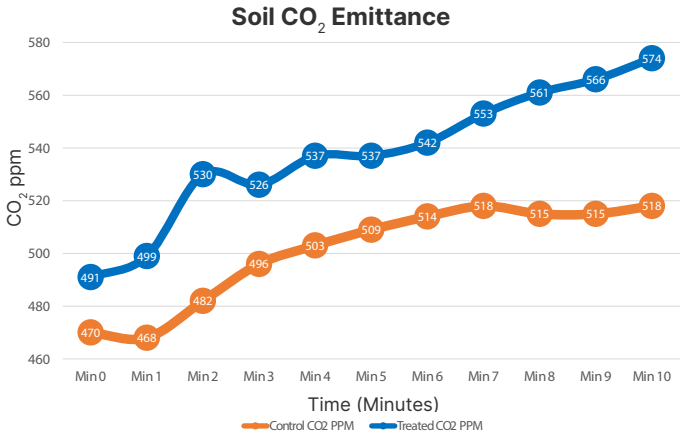
During SLTEC's recent trials (Robinvale VIC), QuadSHOT® fertigated at 30 L/ha has stimulated an increase in soil microbial activity in the Almond tree root zone. We were able to measure this as a function of emissions of soil CO2 from the beginning of the growing season and importantly a consistently warmer soil in the QuadSHOT® treatments. This was an average of 0.7°C higher than the control over the 56 day testing period.

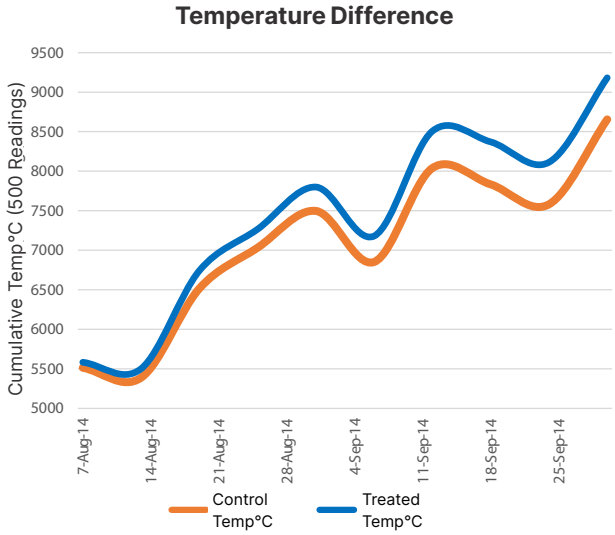


*Reference: Mikhail, E - SWEP Pty Ltd Analytical Laboratories

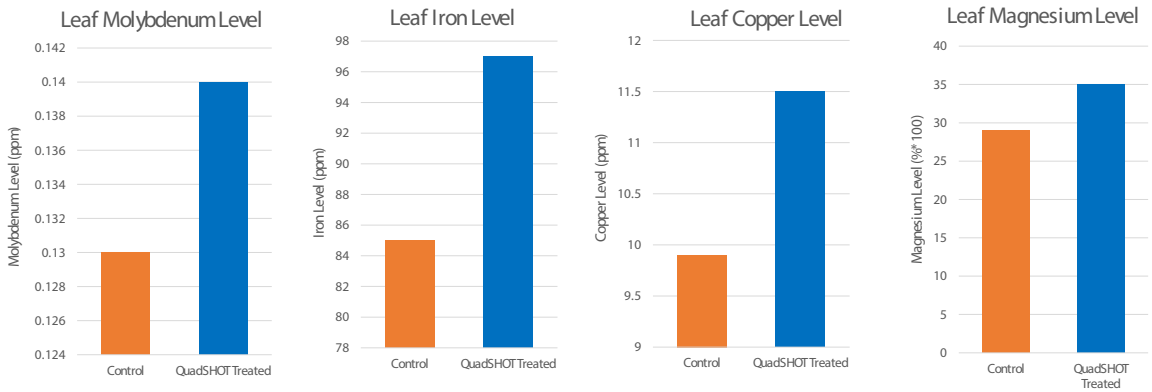
During our trials, application of QuadSHOT® resulted in an increase of soil temperature consistent with a rise in soil microbial activity.

This effect on improved soil temperature in the rootzone during the early August flowering period is seen to be advantageous for early root development and nutrient uptake
(Almond Board Fact Sheet 02, March 2008)





Tissue analysis of Almond leaves from the trial sites has also indicated improvement in many nutrient levels where QuadSHOT® has been applied.



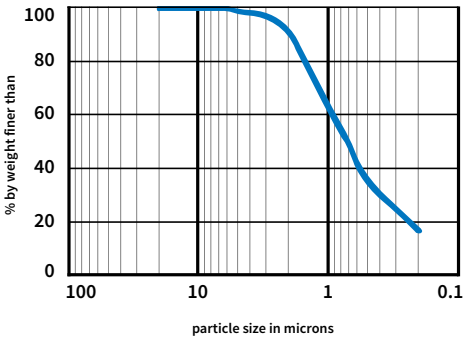
AquaLIME 38™
(Flowable Lime)

Product Code: SG0037

AquaLIME 38™ is a highly flowable calcium carbonate suspension designed to deliver high purity, micronised particles to the soil to raise pH and improve soil structure. Through foliar application, it provides an extremely efficient source of calcium to crops.

AquaLIME 38™ is an extremely concentrated and reactive form of calcium carbonate (or “lime”). The product’s extreme fineness delivers an impressive surface area of 13 m^2/g, significantly enhancing its reactivity within the soil compared to all other forms of calcium carbonate.

Particle Size Distribution



AquaLIME 38™ has a superior neutralising value (NV) of 99 (pure calcium carbonate at NV 100 is the benchmark) compared to other fluid lime sources on the Australian market. However, this is only part of the story - because of the fineness of AquaLIME 38, its effective neutralising value is considered to be 99 because every particle is 100% reactive in the soil.

“The high-grade material in AquaLIME 38™ means responses are extremely fast in the drip zone – in Thailand on red tropical soil, for example, the pH increased from 4.6 to 5.7 in three weeks after an application of 32 L/ha!”

Why Use AquaLIME 38™?

- Highly uniform - extremely fine particle size (1 micron)
- Highly reactive - high purity calcium carbonate
- Neutralising Value of 99
- Flowable for easy pumping
- Can be applied to soil as a broadcast or banded application or via irrigation systems
- Can be applied to crops as a foliar calcium treatment

Chemical Analysis;

Calcium (Ca):	38% w/v
Carbonate (CO_3):	57.7% w/v
Carbon (C):	11.6 % w/v
pH:	9 - 10
Specific Gravity:	1.60 kg/L
Neutralising Value:	99

Application Rates (Soil)

Soil Type/Textural Class	L per ha AquaLIME 38™ (per 0.1 pH improvement)
Sands / Loamy Sands	30 - 40
Sandy / Silty Loams	50 - 70
Sandy Clay Loams	70 - 85
Light to Medium Clays	85 - 90
Heavy Clays	90 +

Application Rates (Foliar)

Foliar Applications

Crop Type	Growth Stage					
Apples	**Pink Bud**	**Flowering**	**Fruit Set**	**Fruit Development**	**Ripening**	**Total**
	5 – 10 L/ha with >1500 L/ha Water	No application during this period	5 – 10 L/ha with >1500 L/ha Water	5 – 10 L/ha with >1500 L/ha Water	5 – 10 L/ha with >1500 L/ha Water	25 - 50 L/ha
Cherry	**Pre-Flowering**	**Fruit Development**	**Ripening**	**Post Harvest**		**Total**
	5 – 10 L/ha with >1500 L/ha Water	5 – 10 L/ha with >1500 L/ha Water	5 – 10 L/ha with >1500 L/ha Water	5 – 10 L/ha with >1500 L/ha Water		20 - 40 L/ha
Tomatoes	**Vegetative**	**Flowering**	**Fruit Set**	**Fruit Development**	**Ripening**	**Harvest**	**Total**
	5 – 10 L/ha with >1000 L/ha Water Or fertigate with irrigation system at the same rate	No application during this period	5 – 10 L/ha with >1000 L/ha Water Or fertigate with irrigation system at the same rate	5 – 10 L/ha with >1000 L/ha Water Or fertigate with irrigation system at the same rate	5 – 10 L/ha with >1000 L/ ha Water Or fertigate with irrigation system at the same rate	5 – 10 L/ha with >1000 L/ha Water Or fertigate with irrigation system at the same rate	30 - 60 L/ha

Soil Banded or Broadcast Applications

Crop Type	Growth Stage	
Potato	**Tuber Initiation to Canopy Closure**	
	200 – 500 L/ha with 400 to 800 L/ha Water	
Carrot	**3-4 Leaf Stage**	**7-8 Leaf Stage**
	100-200 L/ha with 400 to 800 L/ha Water	100-200 L/ha with 400 to 800 L/ha Water

Nutrient Efficiency versus Soil pH

Element	pH 4.5	pH 5.0	pH 5.5	pH 6.0	pH 6.5
Nitrogen (N)	30%	43%	77%	89%	100%
Phosphorus (P)	23%	31%	48%	52%	100%
Potassium (K)	33%	52%	77%	100%	100%

Highly Available, Activated Calcium + Organic Boost

SL TEC FERTILIZERS

BiologiCAL® PLUS

Product Code: SG0017

Plants require calcium in relatively large amounts for many functions, including cell division & strength, root system and leaf development. Calcium is also an essential element required for healthy soils, influencing both the physical, chemical and biological aspects.

Benefits of BiologiCAL® PLUS

- Aids in maintaining a high pH to control clubroot
- Improves nitrogen efficiency; compatible with a wide range of nitrogen-based products.
- Helps to displace sodium and magnesium in difficult soils
- Improves soil structure and friability
- Improving moisture penetration/infiltration
- A unique form of activated calcium that stimulates plant uptake
- Built-in soil and plant stimulants to enhance soil fertility and plant health
- Assists in the reduction of soil nematodes that inhibit root growth and plant productivity
- Provides plant available calcium without extra nitrogen
- Improves plant resistance to disease and overall resilience
- Improves cell wall strength, plant durability and stress tolerance

Guaranteed Analysis (w/v)

Calcium (Ca)	6.5%
Nitrogen (N)	0.3%
Phosphorus (P)	0.1%
Potassium (K)	2.0%
Sulphur (S)	1.8%
Molasses	41.8%
Carbon (C)	12.5%
Boron (B)	0.1%
Fish Emulsion	0.3%
Kelp	0.3%
Humic Acid	0.2%
Specific Gravity	1.281 kg/L
pH (*can vary)	8.0 - 10.0*

Typical Application Rates

Foliar:

Broadacre: 1 to 40 L/ha with at least 100 L/ha
Horticulture: 1 to 20 L/ha with 200 - 2,000 L/ha

Fertigation:

20 to 60 L/ha

Pop-Up, At Planting, Directed Soil Spray

Banded with Seed: 4 to 7 L/ha
Banded to the Side: 5 to 15 L/ha - with 10 to 100 L/ha of water

20 to 60 L/ha as a directed soil spray, prior to planting with 50 to 100 L/ha water

Traditional Fertilisers with the Addition of Biostimulants

At SLTEC® we strive to give you the greatest efficiency possible from your fertiliser applications. This is achieved through two significant factors:

Firstly, our agronomy teams extensive crop knowledge and an understanding of nutrient budgeting, taking into account some of the following issues – soil and plant testing history, land and crop history, regional issues, including climate and crop nutrient removal rates. It is critical to understand the role that soil and plant health can have in the availability of your fertiliser applications, whether broadcast, foliar, boom sprayed, or fertigated.

Secondly, we have developed a range of products incorporating the numerous benefits of the Sustain & Gro® range combined with the need for high nutrient and plant available fertilisers. These products help ensure your soil is in the best possible condition to utilise your traditional fertiliser applications fully. Below is a small sample of some of our more popular blends that contain the benefits of the Sustain & Gro® Product Range. For further information on product compatibility, please contact SLTEC.

Baseline Plus™

Baseline Plus™ has a complete and balanced NPK (12:5:14) plus trace elements (16 nutrients in total) suitable for fertigation and foliar application across a wide range of crops. Baseline Plus™ contains SLTEC's QuadSHOT® - These ingredients stimulate soil biological activity; improving the cycling and availability of plant nutrients, plant uptake efficiencies and soil fertility and health.

Nitro QUAD 3™

Nitro QUAD 3™ is a high nitrogen (41%) fluid fertiliser in three forms (nitrate, ammonium and urea) to provide immediately available and slower release forms of nitrogen. It is blended with 3% of SLTEC's unique QuadSHOT® to improve soil health, plant availability and crop safety.

UAS QUAD 3™

A blend of nitrogen (26%) and sulphur (6%) (4:1) ideal for a wide range of crops. Contains 3% QuadSHOT® for improved soil health, plant availability and crop safety.

NitrologiCAL PLUS TE™

A blend of UAN (34% N) and BiologiCAL® PLUS and all its benefits including calcium with the addition of, zinc, copper and boron. BiologiCAL® PLUS also plays a role in increasing crop safety and nutrient uptake. The four key trace elements ensure you maximise the efficiency of your nitrogen.

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