



PRODUCT INFORMATION GUIDE



At Terra Firma Fertilisers, we have overhauled our products.

We have examined the needs of our plants in today's growing climate & conditions. The extreme fluctuations in weather means that fertilisers have to be smarter than before. They need to feed and strengthen.

To achieve this we have reviewed our processes, looked at the latest research and sourced the best inputs in formulating our new range. The end result, we are sure your plants will love as much as we do.

we make it **grow**

www.tff.com.au

Fertiliser & Seed Spreader

TFF160

**STEEL FERTILISER SPREADER
WITH 160KG CAPACITY.
GREAT FOR PASTURE,
RESORTS & ACREAGE.**

- Features a functional ball type hitch - 50mm (2") Coupling
- Suits 4 Wheeler, Car & Ride-On Mowers
- Spreading width of 7-9 mtrs
- 14" Pneumatic Wheels
- Enamel Finish
- Heavy Duty Cast Iron
- Oil Bath Gearbox
- Sturdy 100kg Weight



Check out our website at
www.tff.com.au to see our
new improved fertilizer range
perfect for the TFF160!



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Poultry Manure

know the facts...



Let's compare:

TERRA FIRMA POULTRY MANURE PELLETS	RAW MANURE
Moisture content 5-8%	Moisture Content up to 40%
Typical Analysis N4.3 P1.9 K2.2	Typical Analysis N3.5 P1.6 K1.8
Sawdust screened out to produce a more nutrient dense concentrated product.	Contains Sawdust causes Nitrogen Drawdown (refer right) Reduces nutrient analysis.
Easy to Spread	Hard to Spread (Belt Spreader - more costly)
Pellets allow more controlled release and won't wash away	Dusty and can blow away or leach quickly in heavy rain. Dust can sit on leaf and has potential for ammonia gas burn.
Composted and Tested to kill harmful bacteria	Potential for harmful bacteria, e-coli, salmonella, listeria, botulism. Risk for Animal Disease
Right form of N (refer right)	Wrong form of N (refer right)

Fully composted, pelletised poultry manure avoids many of the inherent but misunderstood problems associated with the use of raw manures. The main issue is that raw manures flood the soil with excessive amounts of nitrate-Nitrogen.

This one issue is the root cause of many production problems such as, high pest and disease pressure, unpalatable pastures, bitterness or lack of traditional flavour in food crops.

Excessive nitrates often produce inferior flavour and low nutritional content in plants because additional water, required to dilute the high salt index of nitrates, dilutes cell contents. Nitrates are negatively-charged and won't attach to the soil colloids, hence leaching losses are high under irrigation or heavy rainfall.

Composting converts unwanted nitrates into more complex nitrogen forms such as amino acids and microbial proteins. These complex N-forms are stable and plant available and because they are easier to metabolise, the plant has more energy for growth.

We screen our chicken manure compost, over a 5mm screen prior to pelletising to remove the sawdust, as opposed to hammer-milling or crushing the sawdust and keeping it within the compost base as done in some other manufacturers processes.

This gives us a more concentrated nutrient rich pellet. In doing so it separates the humified compost from wood waste and reduces the risk of Nitrogen Drawdown in soil. In practical terms Nitrogen Drawdown occurs when microbe organisms are presented with raw carbon, but insufficient nitrogen to utilise it, this consequently depletes soil nitrogen reserves to break down the carbon, causing starvation in the plant.

We compost fully undercover to avoid leaching or loss of Humic Acid. Humic Acid is the most active, natural bio-stimulant for improved soil and plant health and is a respected and honoured component of our pellets.

Raw Manure contains the wrong form of Nitrogen. Composting converts most Nitrate Nitrogens into microbial protein and mineralised ammonium which is the most beneficial form of nitrogen for plants as it is readily available for the plant to use, converting the energy into plant growth.

Nutrient Packed

Correctly Composted



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Poultry Manure

the base of all our products...



Our fully composted, premium poultry manure base is the foundation of our entire range. Composted fully undercover this biologically activated organic base, rich in readily available nutrients, supplies a wide variety of minerals and organic microbe foods to your plants. Available in Pellets, Granules & Fines, this product is a BFA/ACO Certified Organic Allowable Farm & Garden Input.

APPLICATION RATES

HOME GARDEN:

150g - 300g per square metre in the vegetable garden and around established shrubs. Suitable for use on natives at lower rates.

COMMERCIAL VEGETABLES & VINE FRUIT PRODUCTION:

500 - 2500kg/Ha as a pre-plant application depending on the type and quantity of other soil inputs.

TREE CROPS:

250 - 500kg/Ha depending on age of trees or 500g per tree for each year of the trees age, up to 4kg. Apply under trees with more around the drip line. Apply in Spring and Autumn.

BROAD ACRE CROPS:

75kg - 150kg/Ha in the furrow with the seed as a biological activator.

PASTURE:

200 - 1000kg/Ha after grazing in Winter. Over Winter the pellets will incorporate in the top soil and help initiate greater biological activity increases growth in Spring.



Nitrogen (N)	4.20%	Iron (Fe)	2000mg/kg
Phosphorus (P)	1.90%	Manganese (Mn)	500mg/kg
Potassium (K)	2.40%	Copper (Cu)	90mg/kg
Sulphur (S)	0.60%	Zinc (Zn)	400mg/kg
Calcium (Ca)	3.30%	Boron (B)	30mg/kg
Magnesium (Mg)	900mg/kg	Molybdenum (Mo)	8mg/kg
Silicon (Si)	216mg/kg	Cobalt	4mg/kg
Carbon	35.00%		

Analysis Report Sample Date - 14th May 2014 - Lab Job #D3422
Environmental Analysis Laboratory - SCU

BFA/ACO Certified Organic 149AI



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Organic Life®

ideal for veg, fruit & flowers

a blend boosted with...

- Terra Firma's Poultry Manure Base
- Soft Rock Phosphate
- Sulphate of Potash
- Meat Meal
- Bone Meal
- Seaweed
- Zeolite



This supercharged fully composted, biologically activated organic fertiliser is specifically designed to include 4 forms of Natural Nitrogen, 4 forms of Natural Phosphorus, 3 forms of Natural Potassium, 4 forms of Calcium, 2 forms of Sulphur and 2 forms of Silicon.

WHY SO MANY?

Plant growth is all about the availability of nutrients to the plant and that means feeding a diverse soil biology that converts essential elements into plant available forms. By design Organic Life offers more than one form of the same nutrient, to stimulate many forms of that unseen workforce, to deliver nutrients with different complimentary release times, supporting the plant, offering the available nutrient when the plant needs it.

SO WHAT DOES EACH NUTRIENT DO?

Nitrogen (N) - In simple terms, nitrogen promotes plant growth and supplied in the right form, along with a balanced potassium analysis will deliver strong plants and superior yield and quality. Nitrogen is associated with leafy, vegetative growth. It's part of every protein in the plant, including enzymes so it's required for virtually every process, from growing new leaves to defending against pests. Nitrogen is also an important part of the 'green' in chlorophyll, giving plants their green colour and creating food and energy through photosynthesis. Lack of nitrogen shows up as general yellowing of the plant because chlorophyll density is impaired.

Phosphorus (P) - The 'energy nutrient' enables the plant to establish strong root and shoot systems early in the growth cycle, creating the best foundation for growing, flowering and fruit set. Phosphorus is another vital element associated with photosynthesis. It works in two ways by first assisting to capture the sun's energy and then producing the carbohydrate building blocks used in every plant growth process. Adequate Phosphorus creates a strong foundation in young plants but many people don't realise that a plant requires 2-3 times more energy, after establishment to flower, set a crop and finish with a good yield. Phosphorus needs to be available to the plant every day, that's why Organic Life® has been developed with several forms of (P) to extend the release and availability.

Potassium (K) - The quality nutrient moves carbohydrates around the plant and assists in fruit filling. Potassium improves plant stress tolerance, stimulates early growth, improves the efficiency of water use within cells and aids in developing resilience against disease and insects.

Calcium (Ca) - A vital nutrient needed for the cell division and strengthening the cell wall. Good calcium nutrition is associated with improved disease resistance. Calcium also helps many other plant nutrients transfer across cell membranes in the growth process of plants. Calcium is required in so many plant processes it is important for plant vigour and promoting strong growth right through the production phase and life cycle of the plant. Calcium aids in growth, and in seed formation.

Sulphur (S) - Sulphur partners with nitrogen to produce quality plant proteins. Sulphur is a key component in the development of strong aromatic properties in plants like onions and garlic. Sulphur also helps plants develop natural resistance to disease and aids in growth and seed formation.

Silicon (Si) - Silicon is deposited in the plant cell walls and partners with calcium to improve cell wall structural rigidity and strength, plant and leaf architecture. Silicon in plants can stimulate nutrient uptake and photosynthesis, increase natural immune response and decrease susceptibility to disease and insect damage. Silicon can also alleviate water and environmental stresses associated with water quality (salinity) and various mineral stresses.



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Organic Life®

ideal for veg, fruit & flowers



great for plants & shrubs

delivers more flowers



nutritious organic fruit & vege



APPLICATION RATES

GENERAL:
100g - 200g per square metre.

ROSE FLOWERS & VEGETABLES:

Consider an application of TFF Lime Impact as a pre-plant. Spread 200g per square metre 1-2 weeks before planting. Work into top 5-10cm & water. Established - Spread 100g per square metre every 4 - 6 weeks. For annual flowers apply at early bud formation.

TREE & SHRUBS:

Before planting mix 50g with the soil at the base of the planting hole. Spread another 50g on top of the soil and under the mulch. Established-spread 100g per square metre, away from the trunk and out to the drip line of the plant. Australian Natives - halve the above rates.

FRUIT TREES:

Consider an application of TFF Lime Impact as a pre-plant. Before planting mix 100g with the soil in the bottom of the planting hole. Spread another 50g around the drip line and cover with mulch. Established - spread 500g up to 4kg for older trees. For Citrus apply in July, November & March.

STRAWBERRIES:

Spread 200g per square metre & mix into soil during bed formation. Side dress rows once every 4-6 weeks - 75g per metre of row after flowering commences.

VINES & BULBS:

Spread 100g per square metre before planting. Side dress rows once every 4-6 weeks - 75g per metre of row after flowering commences.



Nitrogen (N)	3.60%	Iron (Fe)	2000mg/kg
Phosphorus (P)	3.10%	Manganese (Mn)	300mg/kg
Potassium (K)	4.00%	Copper (Cu)	70mg/kg
Sulphur (S)	1.63%	Zinc (Zn)	300mg/kg
Calcium (Ca)	6.29%	Boron (B)	220mg/kg
Magnesium (Mg)	0.67%	Molybdenum (Mo)	6mg/kg
Silicon (Si)	1.4%	Cobalt	3mg/kg
Carbon	25.00%		



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Grassmaster®

For lush green grass...



The highest organics analysis in any grass fertiliser combined with a high NPK. Formulated with specially coated high analysis Urea and DAP to complex and stabilise the vital growth nutrients often lost through leaching or volatilisation (the loss of nitrogen to the atmosphere as ammonia gas), giving extended nitrogen and phosphorus protection and release which means less fertilising with greener more manageable growth over a longer period.

The ONLY organic complete grass fertiliser with 4% Calcium for soil balance and plant health. Calcium helps alleviate the acidifying effects of soluble fertiliser nutrients. Healthy turf requires good trace element levels BUT don't pay for extra iron if you don't need it! Most soils are rich in iron however it is often unavailable to plants especially if complexed with soluble P. The high percentage organics in Grassmaster®, includes humic acid, a natural material that helps release iron and phosphorus from the soil for easier plant uptake.

- Terra Firma's Poultry Manure Base
- Black Urea® & Black DAP™
- Sulphate of Potash
- Green Cal - (Natural Gypsum)



APPLICATION RATES

LAWN MAINTENANCE:

Apply 50-100g of Grassmaster® evenly per square metre of lawn every 3 months and water in well. For larger lawns apply 5-10kg per 100 square metres.

NEW LAWNS:

Consider an application of Terra Firma's Lime Impact a couple of weeks before planting. Spread up to 100g per square metre & rake into soil before sowing the seeds, laying turf or planting runners. For large lawns apply up to 10kg per 100 square metre.

PLANTS, FRUITS & VEGETABLES:

Fruit Trees: 100-500g, lifting the rate to the higher range if the trees are established.

Vegetable Beds & Flowers: 75-100g per square metre.

Plants & Shrubs: 30-50g per shrub. Roses & Shrubs - 100g per sq metre. Azaleas, Native & Acid Loving Plants - 50g per square metre.

Nitrogen (N)	10.50%	Iron (Fe)	2000mg/kg
Phosphorus (P)	2.00%	Manganese (Mn)	240mg/kg
Potassium (K)	8.00%	Copper (Cu)	50mg/kg
Sulphur (S)	5.73%	Zinc (Zn)	200mg/kg
Calcium (Ca)	4.00%	Boron (B)	15mg/kg
Magnesium (Mg)	0.95%	Molybdenum (Mo)	5mg/kg
Silicon (Si)	116mg/kg	Cobalt	2mg/kg
Carbon	18.00%		



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Lime Impact

with added minerals... Terra Firma's Poultry Manure Base, Super Fine Lime, Rock Minerals & Boron



Lime Impact is an EASY-TO-SPREAD pelletised lime blend - a ground-breaking innovation combining fully composted organics, high calcium lime, boron and silicon with the advantages of broad-spectrum background nutrition to support healthy soils and plants.

Calcium is the KING mineral because it impacts on all three Soil Health areas - physical, chemical and biological. Calcium helps improve soil pH which leads to better nutrient availability and opens up soil structure to improve aeration and drainage. Soil biology can perform better in well-aerated/oxygenated soils. Calcium and silicon are important for cell strength and disease resistance in plants and it is boron that determines the availability and movement of these vital elements.

Boron activates calcium uptake and movement within the plant and when calcium is more mobile it improves photosynthesis which, in turn, increases sugar content and cell turgor (plant cells become fully hydrated and hold onto this cellular moisture for longer). The end result is improved tolerance of moisture stress and longer shelf-life.

The Organic matter component of Lime Impact, stimulates biology, improves soil structure and helps improve water-holding capacity. Root systems grow deeper, as a result, and gain access to a larger soil volume. In addition the nutrients in Lime Impact are delivered in a low salt index form so the plant uses soil moisture more efficiently. Lime Impact is easily spread and allows you to control your growing costs. Horticultural crops are often grown on leased land, growers often want to minimise input costs to the current crop, therefore being able to apply smaller, more accurate applications of activated lime for the current crop achieves the calcium fertilisation without excessive expense or waste. Pelletised Lime Impact can be placed accurately without the fear of excessive fine dust being lost in the breeze.



APPLICATION RATES

GENERAL:

Normal application rate of no more than 200g per square metre twice yearly.

VEGETABLE & ANNUAL FLOWERS:

Apply no more than 200g per square metre at planting for all vegetables and annual flowers twice yearly.

FRUIT TREES:

Apply between 200g - 300g per square metre twice yearly, lifting the rate toward 300g if the fruit tree is established.

BROAD ACRE SPREADING:

Apply 200-400kg per acre as both a soil conditioner and fertiliser twice yearly.

AUSTRALIAN NATIVE PLANTS:

Use no more than 50g per square metre around Australian Native Plants.



Australian Organic Registered Farm Input

ALLOWED INPUT 149AI (R*)



Australian Organic Registered Garden Product

ALLOWED INPUT 149AI (R*)

Nitrogen (N)	2.20%	Iron (Fe)	3950mg/kg
Phosphorus (P)	1.10%	Manganese (Mn)	240mg/kg
Potassium (K)	1.20%	Copper (Cu)	80mg/kg
Sulphur (S)	0.30%	Zinc (Zn)	200mg/kg
Calcium (Ca)	15.40%	Boron (B)	2280mg/kg
Magnesium (Mg)	0.62%	Molybdenum (Mo)	5mg/kg
Silicon (Si)	3.10%	Cobalt	2mg/kg
Carbon	20.00%		



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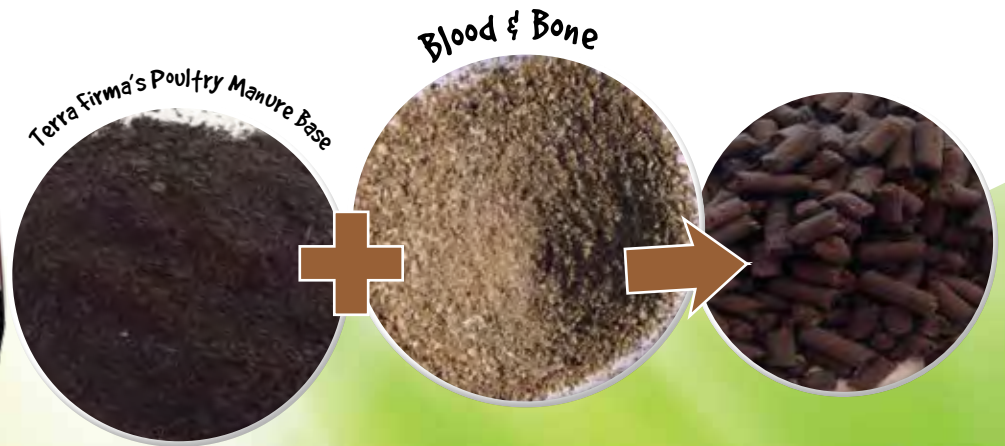
Blood & Bone

a pelletised blend...



Our Blood & Bone product avoids many of the problems associated with traditional Blood & Bone powder. Blood & Bone is traditionally a sterile product from the cooking and drying process. Hard to spread in a powder form and can easily wash away after application.

We have added a percentage of carbon-rich, fully-composted chicken manure which introduces large numbers of beneficial microbes, making this new product biologically active and helping to release natural nutrients faster than traditional Blood & Bone. The convenience of pellets means the product won't wash away and is easier to spread by hand or spinner.



APPLICATION RATES

GENERAL:

Normal application rate of 200g per square metre.

VEGETABLE & ANNUAL FLOWERS:

Apply 200g per square metre at planting for all vegetables and annual flowers.

ROSES, FRUIT TREES & SHRUBS:

Apply between 200g - 300g per square metre twice yearly, lifting the rate toward 300g if the fruit tree is established.

BROAD ACRE SPREADING:

Apply 200-400kg per acre, on pasture, late Autumn & Winter apply liberally enabling the soil to be primed for production in Spring.

AUSTRALIAN NATIVE PLANTS:

Use no more than 25g per square metre around Australian Native Plants.



Australian Organic Registered Farm Input

ALLOWED INPUT 149AI (R*)



Australian Organic Registered Garden Product

ALLOWED INPUT 149AI (R*)

Nitrogen (N)	6.40%	Iron (Fe)	400mg/kg
Phosphorus (P)	6.50%	Manganese (Mn)	100mg/kg
Potassium (K)	0.50%	Copper (Cu)	20mg/kg
Sulphur (S)	0.13%	Zinc (Zn)	100mg/kg
Calcium (Ca)	12.8%	Boron (B)	80mg/kg
Magnesium (Mg)	0.23%	Molybdenum (Mo)	2mg/kg
Silicon (Si)	540mg/kg	Cobalt	1mg/kg
Carbon	24.00%		



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Organics Plus

Terra Foska Gold TE

A compound blend

A compound blend is a Chemical, Trace Elements and Poultry Manure product, in one pellet. Terra Foska Gold TE contains organics and high-analysis chemical fertilisers strengthened with key trace elements to improve plant response. Compound pellets avoid the problem of physical segregation of fertiliser components common in physical NPK blends. A good solid and popular all-round fertiliser that comes into its own on very light soils that are normally prone to nutrient leaching. Terra Foska Gold TE contains DAP, Sulphate of Ammonia, Sulphate of Potash, and Trace Elements Boron and Zinc and of course Terra Firma's Poultry Manure Base.



Custom Blend

correct your TE

Widely used for commercial applications specifically tailored to growers particular soil and plant needs. Comprised of Chemical, Organic & or Mineral Inputs in a Physical or Compound Blend. Agronomy Services are available. Compound blend min order 10t, Physical blend min order 4t.



APPLICATION RATES Terra Foska Gold TE

PLANTS, FRUITS & VEGETABLES:

Fruit Trees - 100-500g, lifting the rate to the higher range if the trees are established.

Vegetable Beds & Flowers - 75-100g per square metre.

Plants & Shrubs - 30-50g per shrub.

Roses & Shrubs - 100g per square metre.

Azaleas, Native & Acid Loving Plants - 50g per square metre.

NEW LAWNS:

Consider an application of Terra Firma's Lime Impact a couple of weeks before planting. Spread up to 100g per square metre & rake into soil before sowing the seeds, laying turf or planting runners. For large lawns apply up to 10kg per 100 square metres.

LAWN MAINTENANCE:

Apply 50-100g evenly per square metre of lawn every 3 months and water in well. For larger lawns apply 5 - 10kg per 100 square metres.

Terra Foska Gold TE

Nitrogen (N)	7.50%	Iron (Fe)	940mg/kg
Phosphorus (P)	4.10%	Manganese (Mn)	240mg/kg
Potassium (K)	6.20%	Copper (Cu)	50mg/kg
Sulphur (S)	6.24%	Zinc (Zn)	1900mg/kg
Calcium (Ca)	1.89%	Boron (B)	1230mg/kg
Magnesium (Mg)	0.53%	Molybdenum (Mo)	5mg/kg
Silicon (Si)	1276mg/kg	Cobalt	2mg/kg
Carbon	20.00%		

Popular Custom Blends

Triple 8: N8 P8 K8

Mango Mix: N2.4 P1 K16.8 (SOP) (BFA Cert)

Melon Mix: N11 P8 K6



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