# Poultry Manure know the facts...



Let's compare:

### TERRA FIRMA POULTRY **RAW MANURE MANURE PELLETS** Moisture content 5-8% Moisture Content up to 40% Typical analysis: N4.3% P2.11% K2.93% Typical analysis: N3.5% P1.6% K1.8% Sawdust screened out to produce a Contains Sawdust causes Nitrogen more nutrient dense concentrated Drawdown (refer right) Easy to Spread Hard to Spread (Belt Spreader - more costly) Dusty and can blow away or leach quickly in heavy rain. Dust can sit on Pellets allow more controlled release and won't wash away leaf and has potential for ammonia Composted and Tested to kill 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, an inorganic form of nitrogen.

This one issue leads to many production problems such as increased pest and disease pressure, unpalatable pastures, increased leaching, and bitterness or lack of traditional flavour in food crops.

This inferior flavour and reduced nutritional content caused by excessive nitrates is because of the plants need for additional water to dilute the high salt index of nitrates, which also dilutes the plants cell content.

As nitrates are negatively charged and therefore repelled by the soil colloids, high levels are lost due to leaching under irrigation or heavy rainfall.

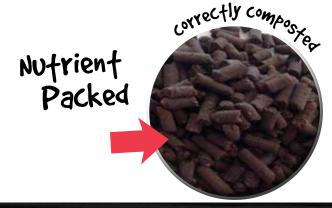
Composting avoids these issues through the conversion of unwanted nitrates into more complex nitrogen forms such as amino acids and microbial proteins. These complex forms of nitrogen are more stable and plant available yet easier to metabolise. This results in increased energy for plant growth.

At Terra Firma Fertilisers, 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 therefore a valuable component of our pellets.

Additionally, we screen our poultry manure compost over a 5mm screen prior to pelletising. This removes the sawdust, as opposed to hammermilling or crushing the sawdust to be kept within the compost base, as done in other manufacturers processes.

This not only produces a more concentrated, nutrient rich pellet. But also 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. The microbes then deplete soil nitrogen levels to break down the carbon, leaving little nitrogen available to the plant.

With high levels of organic carbon, trace elements, and several forms of each major nutrient that release at different complimentary times, this biologically active product is designed to improve the water and nutrient holding capacity of your soil, boost microbial activity, and increase the growth of your plants.



PATILISERS .

we make it grow

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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 is rich in readily available nutrients to supply a wide variety of minerals that boost microbe and plant growth. 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 -  $2500\mbox{kg/Ha}$  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:**

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

### **PASTURE**

200 - 1000 kg/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.



ALLOWED INPUT 149AI



Nitrogen (N)	3.78%	Iron (Fe)	4013mg/kg
Phosphorus (P)	2.11%	Manganese (Mn)	634mg/kg
Potassium (K)	2.93%	Copper (Cu)	167mg/kg
Sulphur (S)	0.55%	Zinc (Zn)	410mg/kg
Calcium (Ca)	4.08%	Boron (B)	54.5mg/kg
Magnesium (Mg)	0.87mg/kg	Molybdenum (Mo)	13.53mg/kg
Silicon (Si)	1334mg/kg	Cobalt (Co)	2.68mg/kg
Carbon (C)	36.9%		

Analysis Report Sample Date - 11th November, 2019 - Lab Job No. i7786 Environmental Analysis Laboratory - SCU

**BFA/ACO Certified Organic 149AI** 



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