

# Dorrigo Basalt Crusher Dust and Palagonite

These igneous rock dusts remineralise the soil and supply trace elements that may be lacking. The finer dust in these products means that normal weathering processes will release minerals more rapidly. These two rock dusts also benefit soil with their paramagnetism. They can be spread out on the soil or incorporated into the compost as it is being made.

The biodynamic preparations enhance the ability of the soil food web to use basalt dust, making it an excellent combination to revitalise your garden. Basalt Dust will recondition your soil naturally, giving you healthier plants, fruit and vegetables and higher yields, faster.

Dorrigo Basalt Crusher Dust grain size is 4mm minus, meaning its particles range in size from 4mm down to fine dust. It was considered necessary to obtain this as a companion product to the Palagonite basalt dust due to its higher paramagnetic value (1200 as opposed to 1000 cgs) and its larger more jagged particles. These two basalts originated as lavas from nearby volcanoes. One is from the Ebor Volcano which erupted around 19 million years ago SW of Dorrigo; the other from an eruptive centre in the Main Range volcanic province west of Brisbane, with a geological age of around 25 million years.

The main difference between these two quarry materials is that Palagonite is a hydrated form of basalt, having flowed as lava into a freshwater lake at Mt Sylvania before solidifying. Thus its minerals are more plant-available than the Dorrigo crusher dust.

Analytical reports on both the crusher dusts are available from the office. If anyone finds the differences difficult to make sense of, I would suggest purchasing equal quantities and blending them before application. The recommended application rate of both products for gardens is the same – approximately 500g per square metre. For larger areas it is generally not economic to buy small quantities, the usual rate ranging from 1 to 4 tonnes per ha (this equates to 1 to 4kg per 10 square metres).

We can supply in quantities up to 20kg bags of Palagonite, and is now also shipping the Dorrigo crusher dust in small quantities, ranging up to 10kg and 20kg pails, premixed if required.

## **Chemistry**

Basalt crusher dust used in gardening and agriculture has many advantages. It contains complex ferro-magnesian silicates which on weathering release the cations of calcium, magnesium, iron, potassium, phosphorus and trace-elements essential to plant growth. Crushing basalt recreates the glacier process, when the basement rocks of the glacial valley are scoured and crushed by the abrasive action of flowing ice. The resulting rock particles are jagged, and there is a high proportion of fine material, resulting in soils developed on glacial deposits having a rich content of available minerals and trace elements.

As we have not had this occurrence in Australia for a considerable span of geological time, basalt rock dust, (aka quarry crusher dust) is an important additive to our generally leached and mineral depleted soils.

The silica content helps protect plants from insect and fungal diseases and prevent micronutrient toxicities and other nutrient imbalances. Silicon is also known to improve and enhance root growth and plant structural strength. Silicon compounds (silicates) impact on soil physical and chemical properties such as soil aggregation, water holding capacity and CEC(cation exchange capacity).

## **Paramagnetism**

Crushed basalt, unlike most other rock dusts, is paramagnetic, some samples being more so than others. One 'theory' holds that this energy is ferromagnetic, being emitted by the magnetic iron oxide (magnetite) within such volcanic rocks, which originate from deep within the Earth's mantle. Ferromagnetism is believed to be quite beneficial to plant growth, and the Web can reveal plenty of evidence for this, from numerous experiments using magnets and circuits generating electromagnetic fields.

The other 'theory' holds that etheric energy from above the Earth is attracted to and accumulated in certain materials in the rocks and the soil. These components, especially the iron silicates and oxides, after collecting and accumulating this energy then redirect it into the surrounding soil as a beneficial energy for the soil foodweb and for the growth of plants. It seems that trees and energy towers act as antennae for this energy. This potent force encourages strong growth of soil microbes, fungi and plant roots, thus increasing plant productivity, especially when there is plenty of compost in the soil. Paramagnetic material is particularly beneficial to the transformative processes going on in a compost pile.

Notes:

1. All blue metal (crushed basalt of screen sizes up to 4mm minus) is useful as a very slow release 'fertiliser' irrespective of paramagnetism.
2. The finer the particles, the faster the soil microbes can break down the basalt minerals into plant food, fine dust is best for this purpose. If fine dust on its own is not available, then just sieve the 'crusher dust' with a fine sieve.
3. The larger the particles – up to about 25mm - the greater the paramagnetic effect radiating off the jagged edges; therefore for best overall results in a garden, a mix of particle sizes is desirable.
4. The cosmic etheric force (now identified by astrophysicists as 'dark energy', and otherwise known variously as 'od', 'chi', 'eloptic' and 'orgone') is especially attracted to soil where 'towers of power' and field broadcasters are erected. Larger trees are generally regarded as beneficial in the same way, functioning as antennae, wave guides and accumulators. For this reason bare paddocks are missing out on a free growth force. Philip Callahan's book '*Paramagnetism*', Acres USA, is particularly illuminating on this fascinating subject area.
5. Basalt crusher dust and/or Palagonite can be applied directly to the soil or dusted over layers as the compost heap is built, or sprayed out as rock dust milk\*. In garden settings it is

best to incorporate the crusher dust into the soil rather than leave it as a surface dressing, unless your mode is no-dig.

6. To take the nitrate sting out of fresh manure, especially poultry and horse manures, crusher dust can be mixed liberally with it - up to equal proportions by weight – and the ‘biology’ will kick in over a period of a few weeks to neutralize undesirable effects of raw manure on the soil foodweb and plants.

7. Basalt crusher dust is beneficial to earthworms and compost worms, as they need grit in their digestive tracts. The same goes for poultry, as this material is optimal for their gizzard. Consider presenting them with a mixture of shell grit (for calcium) and crusher dust (for grinding their food, for the minerals and for the paramagnetic energy).

\*Solids in rock dust milk suspension will settle quickly. To give the rock dust minerals time to leach somewhat, a suggestion is to let a mix of 1kg dust to 20 litres water or 10kg dust to 200 litres water, stand for a few days, stirring frequently. I would also add a smaller proportion of diatomaceous earth – say 100g or 1kg respectively – to give a silica boost to the milk. When decanting for spraying, leave the sediment undisturbed and throw it later onto the compost; otherwise, when putting out onto garden beds or adding during the compost pile build, just stir and apply.