



eco-friendly  
fertilisers  
and brilliant  
products

# PLANT of HEALTH

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## SILICA RICH™ diatomaceous earth

**SILICA RICH™ diatomaceous earth is an easy way of building soil silica levels in a previously unavailable, granulated form.**

**Abundant** plant available Silica has many important benefits to plant health, ranging from **increased photosynthesis**, **increased physical strength**, increases in plants ability to **absorb nutrients**, **reducing** of **pest** and **fungal** attacks as well as a **greater tolerance** to environmental stress such as **heat**, **drought**, **salinity** & **soil toxins**.

**Many** plants & trees including **grasses**, **rice**, **avocados** & **cucumbers** are considered silica accumulators and silica deficiencies through the growth cycle can reduce the benefits described above, reducing yield potential & increasing plant vulnerability. In the **soil**, silica exists in 3 forms: reactive, colloidal & suspended particles E.g. sand. (not plant available)

**Reactive** silica dissolves in water to form silicic acids which are the forms in which Si is taken up by plants. Si is transported from root to shoot via the xylem and must **remain in solution**. The form in which Si is ultimately deposited is **amorphous silica** and, once deposited in cells, cell walls or external plant epidermis layers, it is **immobile** and not

redistributed. Therefore, each time the plant has new growth, silica **must be available** for supply to the new plant tissue. For this reason, Si must be in **constant supply**. Furthermore, each time a crop is harvested, silica is **removed** from the soil so it must be **replaced** to ensure a constant supply to the crop.





**Diatomaceous earth (DE)** is a naturally occurring deposit of fossilised **diatoms, silica rich** ancient marine creatures, that absorb amorphous silica in their outer shell & exoskeletons. It is a naturally occurring, soft, sedimentary rock, formed from prehistoric times when Australia was covered by inland seas. As the seas dried, these natural DE deposits formed this sedimentary earth, which is easily crumbled into a fine white to off-white powder. It has a particle size ranging from less than 3 microns to more than 1 millimetre.

***DE has long been an excellent soil additive due to its ability to absorb water as well as be a rich source of plant available silica, but the crumbly inconsistent particle size & powder has made it difficult to store, manage and apply in a consistent manner.***

**Australian made Plant of Health®, SILICA RICH™ DE is a granulated form of diatomaceous earth that has been specially formed into 2 - 5 mm granules & 0.5 – 2mm Prill, making handling and applying much easier and consistent. Furthermore, the unique granulating process allows for the DE to disperse readily when contacted with soil moisture.**

**Benefits include**

- Exceptionally high levels of Plant Available Silicon– this is bio-available Silica form that can be readily taken up by plants.
- High Cation Exchange Capacity (CEC).
- High water holding capacity.
- 2-5 mm agricultural grade granules which are ideal for blending with N:P:K fertilisers. The 0.5 – 2mm size Prill is excellent for golf courses & bowling greens.
- Granules which disperse readily when in contact with soil moisture giving an **even** Si application through soil profile.
- All Australian made product.
- Suitable for Organic registered growers.
- Can be used as an absorbent or kitty litter
- Rate: - 250kg – 2 tonne per Ha
- Available in 25kg & 1 Tonne bags and Bulk

**Typical Analysis**

Soluble Amorphous Silicon 26%	Magnesium (Mg) 2.2%
Insoluble Silicon 2%	Iron 1.8%
Calcium (Ca) 2.1%	<b>brilliant... naturally!</b>