CALCIUM SILICATE SUGARCANE

Mineral Mulch

Cost-effective Sustainable Soil Amendments

A highly economical Refined not Mined alternative to entrenched agricultural products such as Gypsum with the added Benefit of Silica and other Trace elements.

Silicon (Si) may be one of Earth's most prevalent macronutrients however, its availability to plants is limited unless certain requirements are met *Mineral Mulch Calcium Silicate* is a unique product as It contains both a high percentage of water-soluble silicon and available calcium (Ca).

Mono-silicic acid is the only silica form that is absorbed by the plant roots but it requires adequate Calcium to be present to move the silica into the epidermal (outer) tissues and create a Si-cellulose membrane, this in turn makes Mineral Mulch Calcium Silicate with its provided 4 forms of highly available Calcium, Calcium Carbonate (Lime), Calcium Oxide (Burnt Lime, or Slacked Lime), Calcium Silicate and Calcium Sulphate (Gypsum) an ideal agricultural silica and Calcium source.

Our products have been manufactured with the end-user in mind being both easy to store and apply, whilst also being a cost-effective input. Best of all it is sourced from 100% sustainable and recycled materials, containing no substances that will contaminate the soil.

Note: Sugarcane being Silicon Accumulator can remove between 215 to 375 kg/ha of silica from the soil per average crop.[1]

SILICA BENEFITS IN SUGARCANE

- Increased yields of an average of 25%[2]
- Improves crop tolerance against salinity, waterlogging, nutrient deficiency, heat and UV Stress preventing leaf freckling[1]
- Beneficial in stimulating natural plant defences against fungal pathogens[1]
- Provides strength to cell walls; contributes to stalk strength and helps resist lodging[1]
- Acts as an enzyme regulator in sugar synthesis, storage and retention in sugarcane[1]
- Assists plants to resist biotic attack by insects (e.g. stem borers) and disease[1]
- Alleviates the toxicity of metal irons (Fe, Al, Mn, Cd, Pb, Hg and Zn)[1]

[1] AUSTRALIAN SUGARCANE NUTRITION MANUAL June 2019 Chapter 21 : Silicon (Si) 91

[2] Results may vary based on various climatic and soil conditions Trial work completed by Dr Graham Kingston's from 2014 to 2016 Bundaberg QLD

"silica deficiencies in the plant reduce the plant's ability to resist disease and pest attack due to a loss of strength and cell structure"

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