

CALCIUM SILICATE BENEFITS

Calcium silicates is emerging as one of the most *effective* sources of silicon in agriculture. Silicon enhances soil fertility, improves disease and pest resistance, and increases photosynthesis.



The role of Silicon in Strawberries

- › Provides strength to cell walls
- › Alleviates environmental stresses such as drought and frost
- › Beneficial in stimulating natural plant defences against fungal pathogens by activating various organic compounds and enzymes
- › Improves photosynthesis because of the better use of sunlight
- › Improves water use efficiency (rate of transpiration may increase and become excessive when silicon is deficient)
- › IMPROVED NUTRIENT AVAILABILITY Silicon interacts with plant nutrients such as phosphorus and potassium, influencing their availability to the plant.
- › Research has shown that silicon:
 - Plays a role in regulating excessive toxic elements such as aluminium, iron, zinc and manganese
- › Silicon in the management of powdery mildew in strawberries can delay and reduce the incidence. Powdery mildew can reduce strawberry yields by up to 30%. Protected cropping systems (e.g. tunnels) also favours the disease. Producers are finding it increasingly difficult to control the fungal disease with longer production periods and the limited fungicides available.

Application methods

Silicon can be applied to the soil at pre-planting or directly to the plant through foliar or sub-irrigation application.

- › CAUTION - Smothering leaves in foliar applications of silicon may reduce yields. Excess silicon is not harmful to the plant but it can block sunlight in extreme concentrations. White leaves are a good indicator of excess foliar application.
- › The most practical approach for application is to add silicon during the ground preparation process by using Calcium Silicate.
- › The impact of silicon fertiliser will depend on soil type, pH, soil texture, electrical conductivity, silica content and nutrient availability. Strawberries in sandy soils and highly acidic soils tend to respond best to silicon fertiliser.





What is Flinders Calcium Silicate?

Flinders Calcium Silicate is refined from a 100% sustainable and recycled material. There are no substances that will contaminate the soil. (SDS available).

Flinders Calcium Silicate is a unique product having up to 270kg of silicon and 140kg of calcium per tonne.

Flinders Calcium Silicate is assisting growers with improved plant health and increased yields in many crops like sugar cane, turf, lucerne, macadamias, avocados and cotton to name a few.

How and when to apply

Flinders Calcium Silicate can be spread and combined prior to planting in most field crops, or can be added as a post-plant side dressing for trees and vine crops.

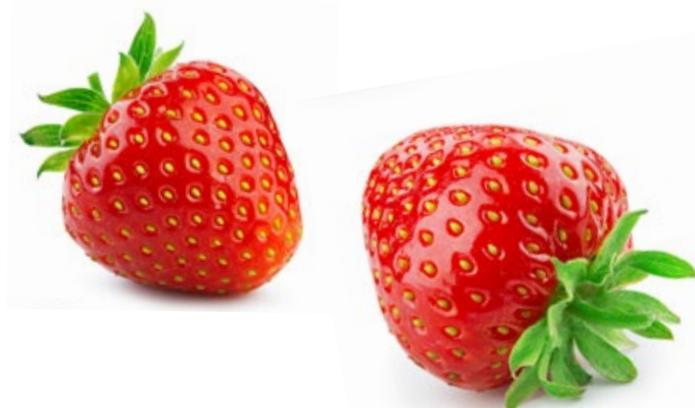
As with all other soil nutrients like NPK's fertilisers, Silicon is lost with constant crop removal and weathering. It is therefore recommended to be applied every 12 to 18 months depending on crop requirements.

Flinders Calcium Silicate is not just being used for its plant growth and health benefits. It is also an economically viable substitute for Gypsum or Lime applications to condition your soil. Our Agronomists can assist with customised application rates for your soil.

When did you last apply agricultural silicon?

Flinders Calcium Silicate is being regularly applied by many growers in the Greater South East Queensland region. Call 1300 985 988 or visit flindersagriculture.com to contact one of our field agronomists to discuss how Flinders Calcium Silicate could work for you!

Flinders Calcium silicate is one of the most plant-available and economical sources of agricultural silicon.



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