AgriSil K50®

Reg. No. B3756, Act 36 of 1947

Biostimulants




Andermatt
Madumbi

AgriSil K50® (B3756)

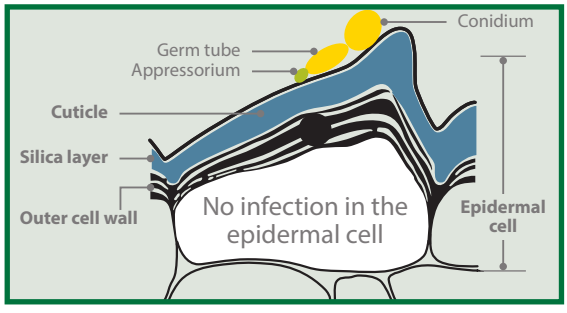
A *potassium silicate* based liquid fertilizer for silica supplementation in all crops.

Why use *AgriSil K50®*?

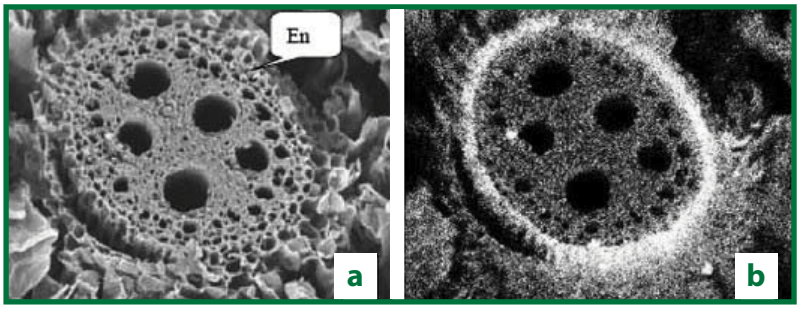
Features	Benefits
An extremely soluble plant available form of silica	Efficient uptake of silica with results achievable at comparatively low application rates
Silica strengthens plant cells	Improved cell strength results in improved crop quality (e.g. reduced lodging in barley, shelf-life of flowers/fruit, etc.) Improved crop tolerance to abiotic stress (e.g. heat/cold/drought) and related crop losses (e.g. physiological fruit drop)
Silica deposits around vascular tissue support vascular functioning	Improved water use efficiency and better translocation of nutrients can result in better yield especially under stress conditions
Silica is a 'catalyst' of natural resistance responses in plants	Improved natural resistance to a wide range of pests and diseases making *AgriSil K50®* an ideal partner in any IPM program
Non-toxic agricultural input with no MRL requirements	*AgriSil K50®* can be applied up to and during the harvesting period

How does *AgriSil K50®* work?

Silica and cell strength



Silica can be deposited below the cuticle forming a mechanical barrier between the plant and its environment.



Silicon deposits (far right) help re-inforce the vascular bundles keeping them open and leading to more efficientt transport of water and nutrients.

Silicon also acts as a 'catalyst' of natural plant resistance mechanisms. This means that where there is sufficient silica available to the plant, resistance responses are more complex and occur quicker.

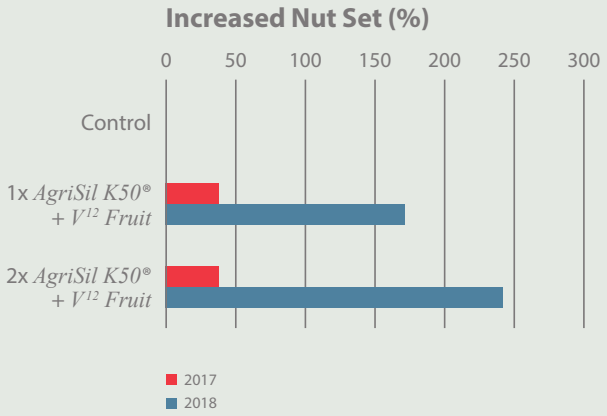
***NB** – *AgriSil K50®* does not function as a pesticide in any way as it has no direct effect on any pest or disease. It simply helps activate and enhance the plants own natural resistance mechanisms.

Trial data:

Silica reduces stress resulting in improved fruit retention on fruit/nut crops

Figures right: The use of silica helps improve stress tolerance. In this particular trial (Macadamias) the improved stress tolerance resulted in a reduction in physiological drop and improved nut retention.

Data from a trial report by Subtrop Research (E. Joubert, 2018).



Reduces cold stress

Images right: Banana plants subjected to cold stress for 4 days at 4°C.
The right plant treated with *AgriSil K50®* prior to stress illustrated greater tolerance to cold.

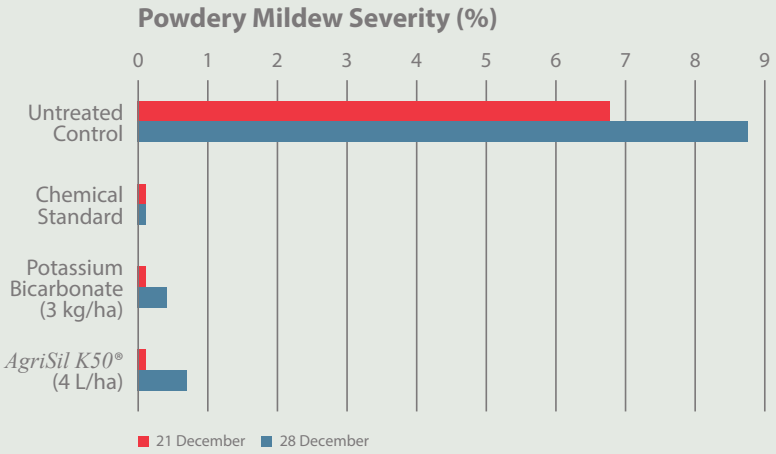
Work done at UKZN.

Silica improves natural resistance to pests and diseases

Figures right: Silica supports the plants natural immunity to pests and diseases.
In this trial, on Crimson Seedless grapes, improved resistance resulted in a reduction in powdery mildew severity. This makes *AgriSil K50®* an ideal addition to IPM programmes.

ASC Research (2017).

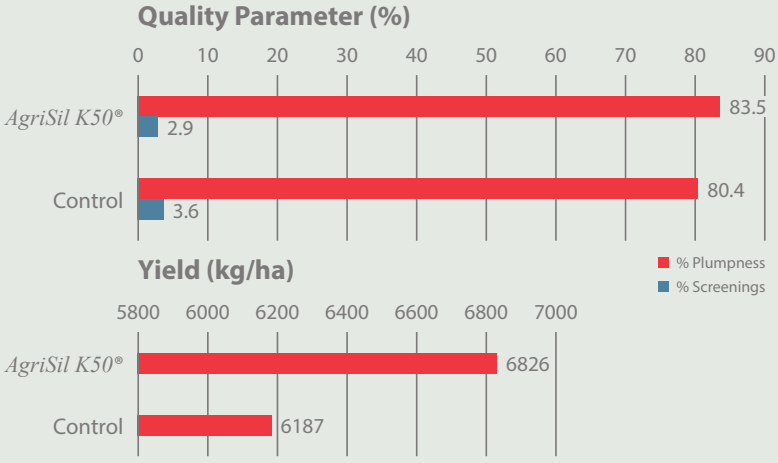
Note: *AgriSil K50®* is not a fungicide, the response seen in this trial is purely a result of improved natural resistance.



Improved grain quality and yield in barley

Figures right: *AgriSil K50®* improves stress tolerance in barley. In this particular trial this resulted in improved grain quality parameters and yield.

Data from SAB agronomy trials (B. Erasmus, 2015).



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Application instructions:

Crop	Method	Dose rate
Row crops (maize, wheat, etc.)	Foliar spray or through irrigation	0.5 L/ha to a maximum of 5 L/ha depending on the crop. Please refer to the registered label for further details.
Veg and small fruit (e.g. berries)	Foliar spray or through irrigation	
Tree crops and vines	Foliar spray or through irrigation	
Nurseries and hydroponics	Through irrigation water	

Available in packs: 100 ml, 1 L, 5 L, 20 L and 1000 L

- *AgriSil K50*® is **highly Alkali (pH >11)** and as such can cause compatibility problems related to this high alkalinity
- Buffering agents – Not all buffering agents are compatible with *AgriSil K50*®. Check for compatibility before making large tank mixes
- Silica salts in general are highly reactive. **Avoid mixing with products containing salts of magnesium, calcium, zinc and aluminum**
- **Always conduct a jar test before mixing product or consult your distributor**

Marketed and Distributed by:

Andermatt Madumbi

Manufactured and Registered by:

PQ Corporation

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