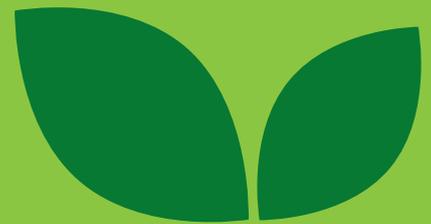


# Sequester more Carbon Dioxide (CO<sub>2</sub>) Increase soil Organic Carbon Reduce Greenhouse Emissions

*While increasing crop yield & quality?  
It's as simple as...*

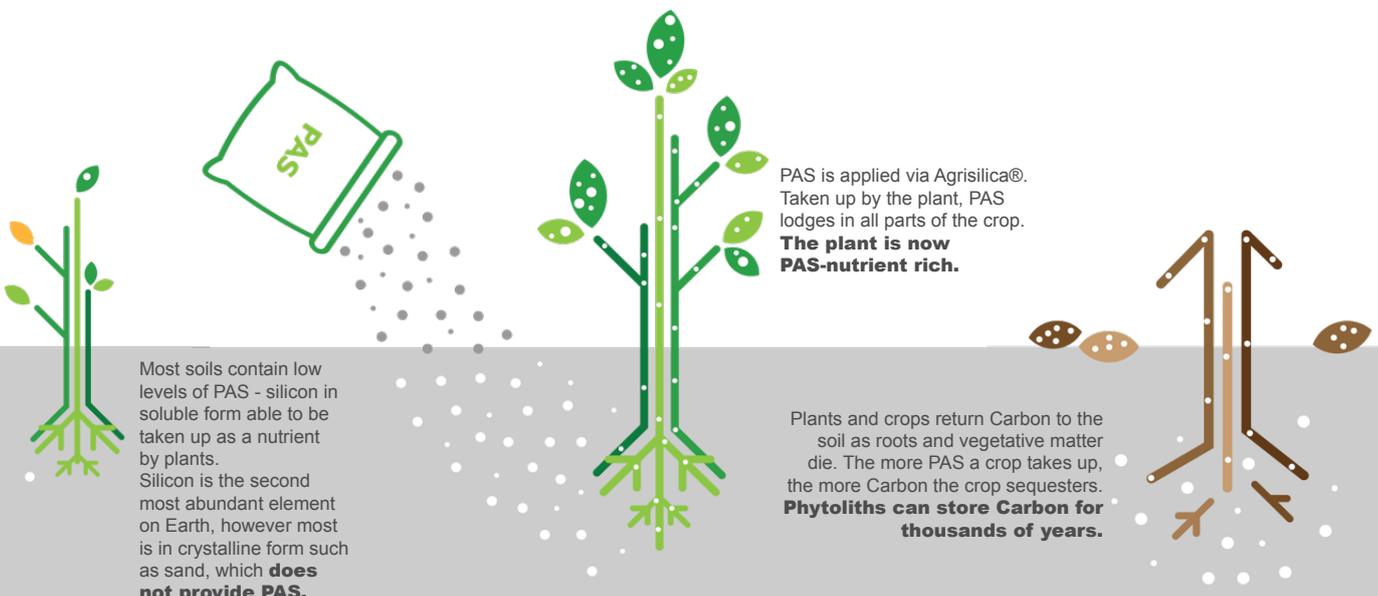
## Getting your 'plant available silicon' (PAS) right !



### Applying a 'plant available silicon' (PAS) fertiliser such as Agrisilica® will:

1. Increase plant uptake of all nutrients such as N:P:K, MAP, DAP etc., with better utilisation of those nutrients within the plant.
2. PAS makes plants more erect, increasing photosynthesis, which in turn, increases plant energy.
3. Due to increased photosynthesis, more atmospheric CO<sub>2</sub> is absorbed by plants, which in turn exude more clean oxygen (O<sub>2</sub>) back into the atmosphere.
4. Due to increased PAS the plant will have more phytoliths. The more phytoliths, the more carbon is occluded by
5. the plant through the root zone into the soil, creating increased soil carbon.
6. Increases soil organic carbon.
7. Phytoliths remain intact, storing the carbon. It is a natural process that has been going on for millennia.

**The difference today, with an abundant supply of PAS now available for the first time globally, is that much more carbon can be sequestered than ever before and soil carbon replenished.**



## Agriculture faces 6 key challenges:

- Food Security**
- Crop Loss from abiotic/biotic stress**
- Soil Health**
- Environmental Damage**
- Toxicity**
- Emissions**



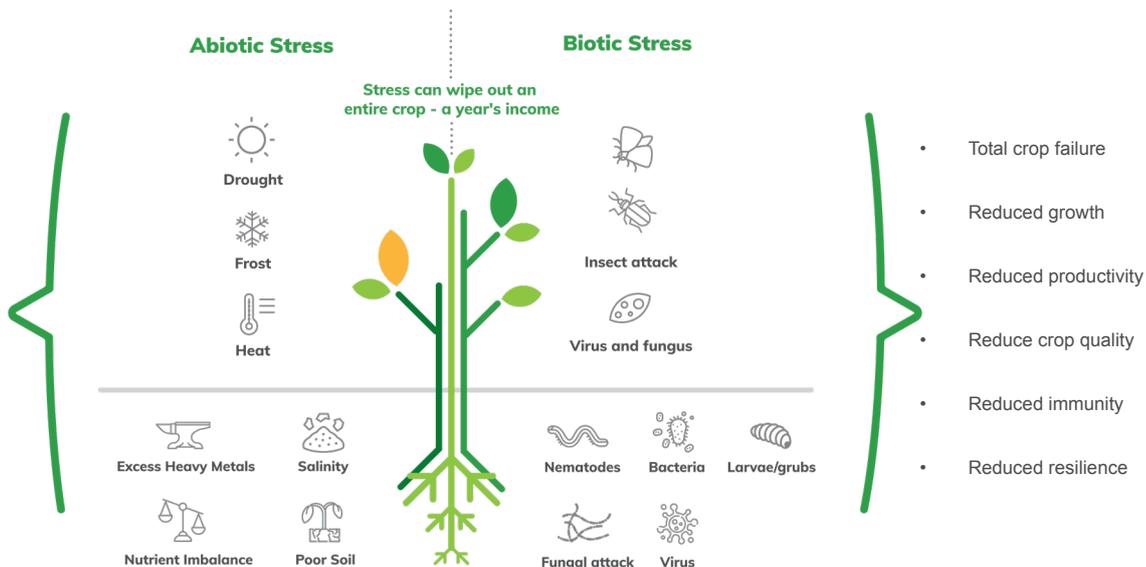
## Agrisilica® helps farmers achieve the FAO's 3 Pillars of Climate Smart Agriculture (CSA):

1. sustainable intensification
2. resilience to climate change
3. reducing, mitigating and/or removing harmful greenhouse gas emissions and environmental pollution

*The many benefits of PAS you will read about here is not new science, its part of life itself!*

See Agripower's Climate Smart Agriculture brochure to learn more about how Agrisilica® makes positive differences to agriculture.

- Total crop failure
- Reduced growth
- Reduced productivity
- Premature senescence
- Reduced water uptake
- Reduced photosynthesis
- Altered transpiration
- Decreased nitrogen assimilation
- Metabolic toxicity
- Altered gene expression
- Disorganisation of membrane systems
- Altered protein synthesis



- Total crop failure
- Reduced growth
- Reduced productivity
- Reduce crop quality
- Reduced immunity
- Reduced resilience

**Agrisilica® proven mitigator against devastating crop stress**



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### Reduce N<sub>2</sub>O and CH<sub>4</sub> agri-emissions

### Reduce plant uptake of Heavy Metals

- Reduces fertiliser run-off and leaching
- Fixes N<sub>2</sub>O (nitrous oxide) and CH<sub>4</sub> (methane). N<sub>2</sub>O is caused by nitrification from nitrogenous fertilisers, and natural CH<sub>4</sub> emissions arise from microbial decomposition of organic material (for example, decaying plants) in anaerobic ('lacking oxygen') conditions in wetlands. It has been estimated that global rice production is responsible for 11% of total anthropogenic CH<sub>4</sub> emissions.
- Reduces heavy metal uptake by plants including reductions of harmful Cadmium (Cd) and Arsenic (As) from the food chain by up to 40%



### The power of PAS-rich Agrisilica®

*Agrisilica® is 100% naturally derived, non-toxic, approved for organic farming and suitable for all types of farming and horticulture.*

1. reduces GHG emissions
2. reduces land & marine pollution via fertilizer run-off
3. reduces the need for further land clearance
4. reduces crop losses (pests, drought, frost etc)
5. reduces water usage
6. reduces pesticide usage
7. increases crop size, quality, shelf life, market value
8. increases farmer revenue
9. increases soil health & moisture
10. increases uptake of nutrients (e.g. NPK etc)
11. increases CO<sub>2</sub> sequestration
12. increases soil carbon

Agripower, the worlds largest supplier of PAS-rich fertilizers brings farmers a fertiliser that increases crop results and is 100% climate and ecosystem positive.

**More information:** [www.agripower.com.au](http://www.agripower.com.au)