



**World's leading supplier
of 100% Natural Silicon
Fertilisers at scale
for Global Agriculture**

| Belgrade September 2025

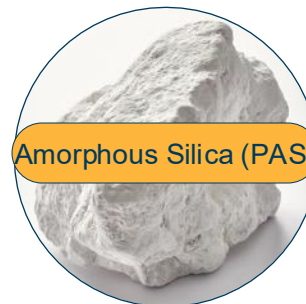




AGRIPOWER AUSTRALIA

Company Overview

Agripower Australia: world's largest producer of 100% natural *PAS-rich, non-synthetic Silicon fertilisers



Amorphous Silica (PAS)



AGRISILICA®

- 100% natural
- 100% safe, non-toxic
- Extremely low carbon footprint
- Climate safe/smart farming



**Global Producer at Scale
of Plant Available Silicon (PAS)**

Unmatched USPs
Crop results, ROIs, Climate & Sustainability

**Market Disruptor
To USD200Billion Global Fertiliser Market**

The efficacy of silicon fertilisers in relation to plant and soil biology has been proven since the early 20th century. However, synthetic silicon fertilisers were found to have contaminants, including carcinogens, and their market fell away. Now, with the at-scale availability of 100% safe, natural silicon fertilisers - with significant multiple crop, climate, and environmental value-adds, Agrisilica® is a game-changer.

World Class Asset



**At Surface to 30M:
Low Extraction & Production Cost
Low Waste,
Low Carbon Footprint,**

**AgriPower controls 86% of
known world resources of
Amorphous Silica (Plant
Available Silicon - PAS).**

**At ~2 Billion tonnes, supply
at 10Mtpa is ~ 200 years.**



There are two types of silica: *crystalline* (e.g. sand), which is not 'plant available', and *amorphous*, which is soluble and therefore readily available for plant uptake.

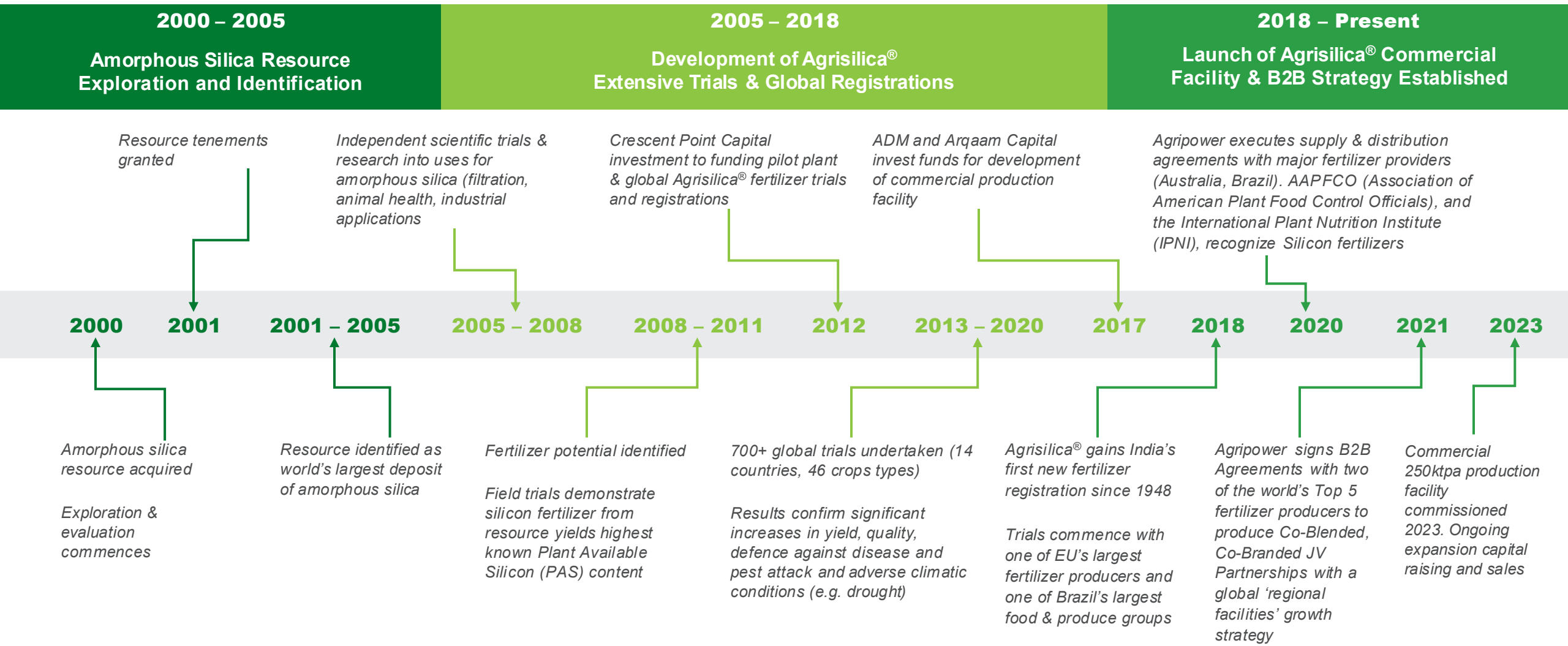


Plant Available Silicon (PAS) is officially recognised by **AAPFCO** '*beneficial nutrient*'



The annual global fertiliser market is **predicted to reach US\$500+ billion by 2030**

Agripower History and Key Milestones



Agripower Operations, Far North Queensland, Australia

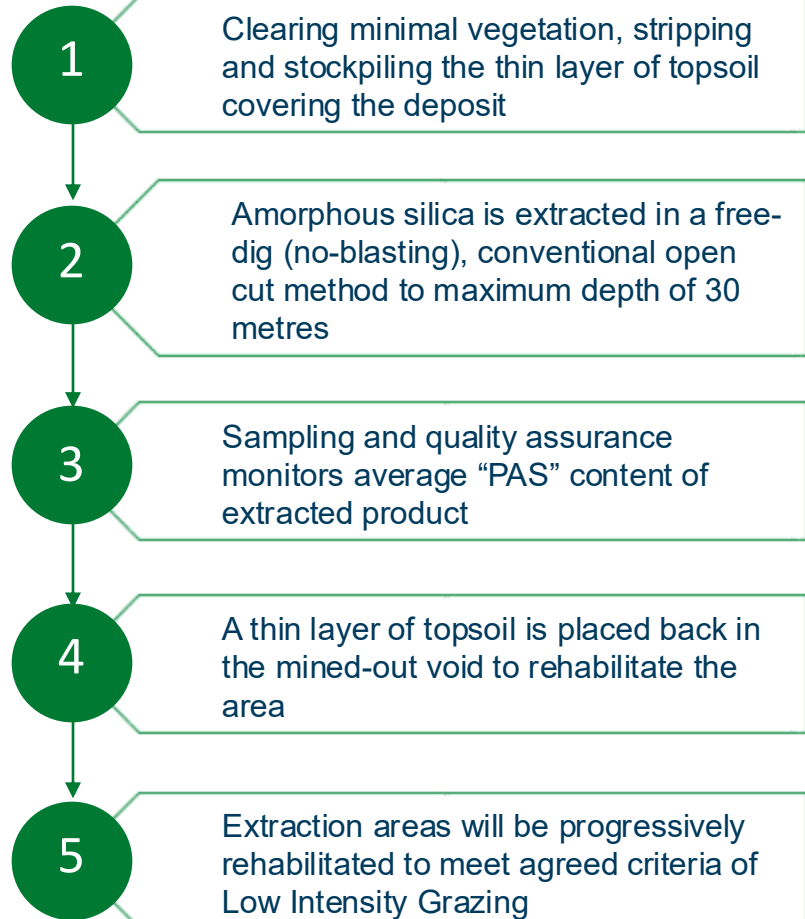
- **Mine site**
approximately 300kms by road
North-East of Charters Towers
- **Mined product**
trucked to Charters Towers
processing plant
- **Mined product stockpiled**
at Charters Towers and refined
to produce a number of Silicon
based fertiliser products
including granular fertiliser to
specifically blend with standard
NPK fertilisers.

370 kms - Cairns to Mine Site
320 kms - Townsville to Mine Site
125 kms - Charters Towers to Townsville



Overview of the Deposit

Extraction method



Deposit



- 2 billion tonnes of amorphous silica deposit, at 10M tpa production, a 200-year project life
- Low-cost extraction operation due to the simplicity of no-blast, open-cut method
- Average 26% PAS throughout the entirety of the amorphous silica deposit.

Transport

- Amorphous silica is transported from mine site 320 km by road to the Manufacturing Facility
- Amorphous silica is received at manufacturing facility and stockpiled on a Run of Mine (ROM) pad where it remains until required for processing

Contract model

- Campaign mining by third party contractors
- Due to low stripping ratio and low, ~30 metre depth of deposit, Mining capacity is literally unlimited, up to several million tonnes per month using mobile fleet of excavators and trucks.

Business Overview

Resource:

Far North Queensland, Australia
15 Kilometers x 6 Kilometers
to 30M depth

Operations:

Far North Queensland, Australia
Current production capacity
250,000 Tpa

Export:

International Port of Townsville,
Northern Queensland,
Australia

Head Office:

Sydney, New South Wales,
Australia

Agripower has invested \$240M to:

- Develop Agrisilica®, a unique fertiliser product based on its amorphous silica reserves.
- Conduct over 1,000 independently audited trials globally across different countries, climates, soil types, and approximately 50 crop types to demonstrate its product's efficacy.
- Register Agrisilica® as a fertiliser in 21 countries, accounting for more than 70% of global production.
- Develop and commission a state-of-the-art processing facility with a capacity of 250k TPA (see images at right).



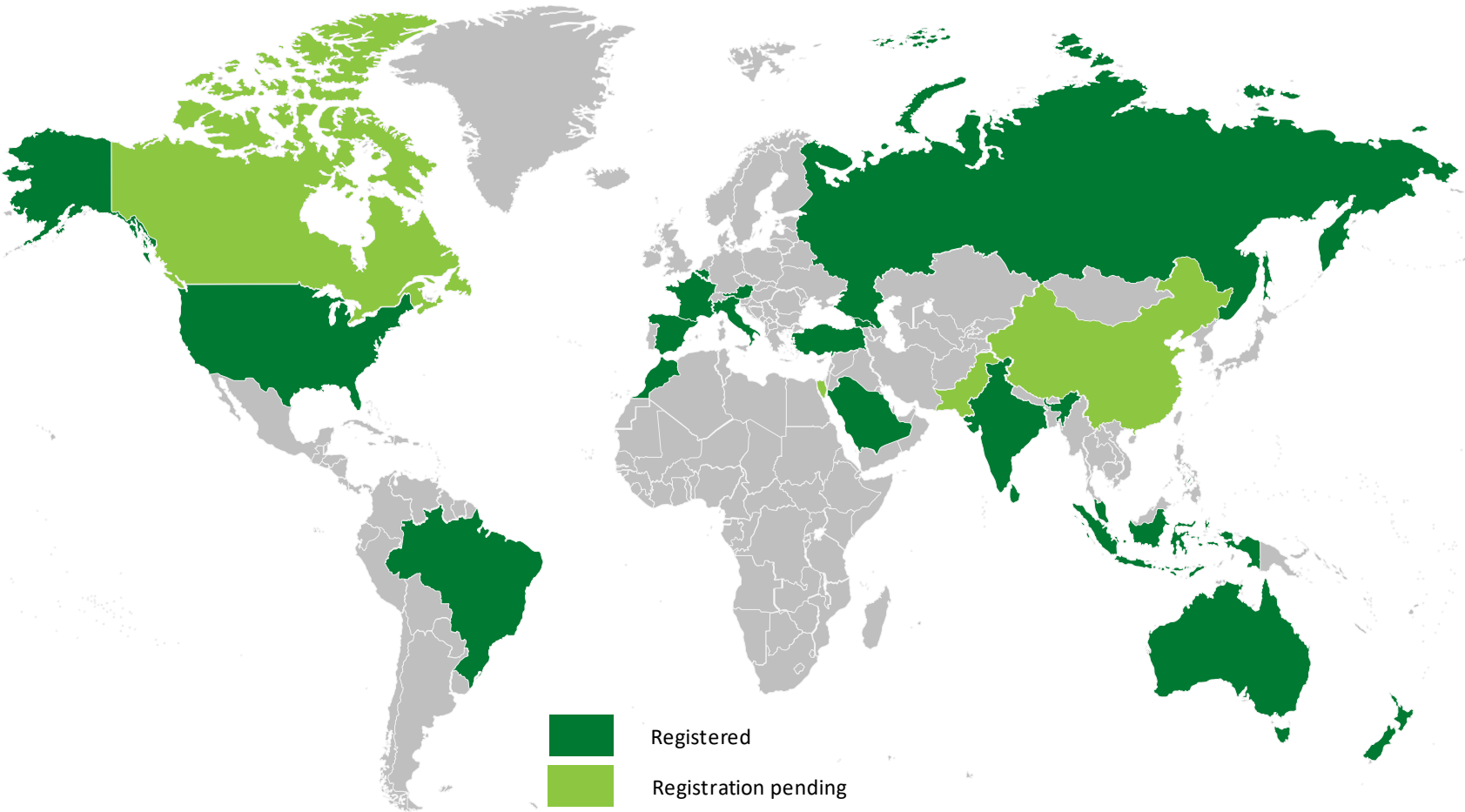
Global Export from Port of Townsville, Qld, Australia



Agripower operates from a safe, geopolitically stable region, able to service agriculture worldwide

- ❖ Agrisilica® is containerised or shipped in bulk
- ❖ The Port of Townsville (POT) is the largest port in North Queensland with infrastructure capabilities that meet Agripower's requirements with containerised, dry bulk, bulk liquid and break-bulk cargoes
- ❖ POT expansion plans have Agripower in sight as a cornerstone of new dedicated berthing facilities

Registered in over 70% of world agricultural regions



Country	Registration Status
Australia	Registered
Austria	Registered
Belgium	Registered
Brazil	Registered
France	Registered
Georgia	Registered
India	Registered
Indonesia	Registered
Italy	Registered
KSA	Registered
Morocco	Registered
New Zealand	Registered
Russia	Registered
Spain	Registered
Sri Lanka	Registered
Turkey	Registered
USA	Registered
China	In Progress
Canada	In Progress
Pakistan	In Progress



Certified product of Australia



Accredited by Fertilizer Industry Federation of Australia



Certified by Australian Organic as an input into organic farming



Third-party reviewer of inputs for organic use under the U.S National Organic Program



SA F-32600 Product suitable for use in Organic Agriculture conforming to (CE) regulation n° 834 / 2007 and 889 / 2008

Agrisilica® is available for co-blending with NPK products in all registered countries

An aerial photograph of a lush green agricultural field. The field is divided into large, concentric circular sections, characteristic of a pivot irrigation system. A small, dark-colored irrigation wheel is visible in the upper left quadrant, with long, thin metal arms extending from it across the field. The vibrant green color of the crops suggests healthy growth. The text is centered over the middle of the image.

AGRISILICA® - Our Silicon Fertiliser Yield and Profitability

Increased Yield with Agrisilica®



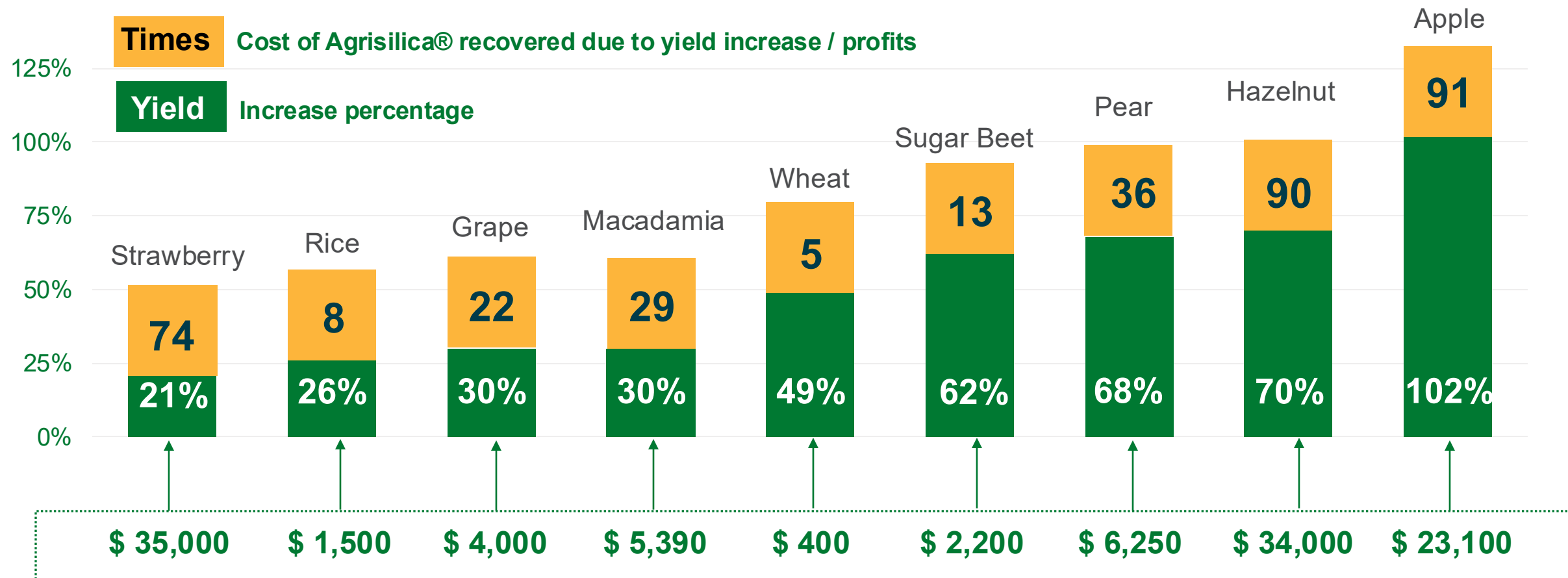
Onion	63%
Sugar Beet	62%
Apple	50%
Wheat Irrigated	49%
Sugar Cane	43%
Tomato	30%
Pumpkin	28%
Courgette	28%
Cotton	24%
Orange	23%
Rice	20%
Soybean	20%
Wheat Average	18%
Cucumber	14%
Potato	14%
Corn	14%

PAS-rich Agrisilica® is suitable for all types of agriculture and horticulture.

- ✓ Over 1,000 trials globally
- ✓ More premium fruit/crop
- ✓ Reduction in undersized crops
- ✓ Increased crop weight
- ✓ Disease incidence lowered
- ✓ Longer shelf-life
- ✓ Increased nutritional value (reduces heavy metals)
- ✓ Suitable for organic & hydroponic farming

Farmer return on investment (ROI) proven - from 4x up to 114x

Agrisilica® Increases Grower Profitability & Productivity



Additional Grower Profit (A\$ Per Hectare) - based on Agrisilica® farmer price of US\$650 per tonne

Significant Grower ROIs with Agrisilica®

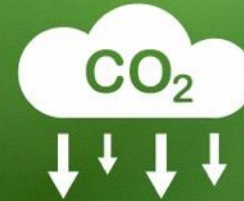
Farmer return on investment (ROI) proven from 4x up to 114x

- Silicon fertilisers increase the uptake of all nutrients, including nitrogen, phosphate and potassium and better utilise all these within the plant
- PAS is taken up by plant roots in form of silicic acid and transported throughout the plant by its vascular system
- Silicon strengthens plant cells, resulting in more erect stems and leaves, even in warm conditions
- Plants are able to capture more sunlight, CO₂ and water, essential for plant growth and photosynthesis
- Increased photosynthesis from silicon fertilising results in greater biomass, improving crop size, weight and quality

Source: Independently managed trials by Universities and Corporate farms using granulated Agrisilica® fertiliser

Crop	Yield Increase %	Number of times Silicon Fertiliser cost covered (ROI)
Apple	50	28.1
Avocado	27	50.7
Banana (Greenhouse)	26	16.4
Barley	92	4.5
Blueberry	6	15.6
Cherry	20	99.9
Chilli	59	210.8
Citrus (Mandarin)	23	22.7
Coffee	34	6.7
Cotton	21	5.1
Cucumber	34	113.1
Date Palm	8	25.1
Grape (Wine)	30	20.0
Grape (Table)	27	65.0
Hazelnut	70	82.0
Macadamia	30	26.7
Maize	21	3.2
Melon	34	39.6
Olive	19	9.4
Onion	63	13.6
Pear	68	32.9
Pomegranate	31	18.0
Potato	17	17.5
Raspberry	23	77.2
Rice	26	8.1
Rice	28	4.8
Soybean	17	5.3
Strawberry	21	67.7
Sugar Beet	62	11.5
Sugar Cane	85	17.1
Sugar Cane	11	5.1
Tea	16	7.2
Tomato (Field)	29	40.0
Tomato (Greenhouse)	12	11.9
Wheat	19	18.6
Wheat	49	4.8

AGRISILICA®
Sustainability



Agrisilica® supports the United Nations SDGs



- **Increasing Productivity**
- **Increasing Sustainability**
- **Delivering Climate-Smart Agriculture**



FARMER

1. Yield increases up to 120%
2. Crop quality increases / profits increased by up to 40%
3. Crop loss reduced
4. Water-use reduced
5. Pesticide-use reduced
6. Less nutrient loss
7. Soil fertility / soil carbon increased

GLOBAL ISSUES



SUSTAINABILITY

1. Less water pollution via nutrient run-off & leaching
2. Less pesticide usage
3. Less water required
4. Reduced need for land clearance

GLOBAL ISSUES



FOOD SAFETY / SECURITY

1. Less toxicity in crops (less crop stress & increased food safety)
2. Less pesticide in food chain
3. Higher nutritional value
4. Higher reliability of crop
5. Increased crop volume to market

GLOBAL ISSUES



CLIMATE

1. More CO₂ captured by plants
2. More O₂ exuded by plants
3. Less Nitrous Oxide (N₂O) emissions
4. Less Methane (CH₄) emissions
5. More carbon sequestered

GLOBAL ISSUES

Agrisilica® Sustainability – benefits no fertiliser can duplicate or equal

The PAS Effect...

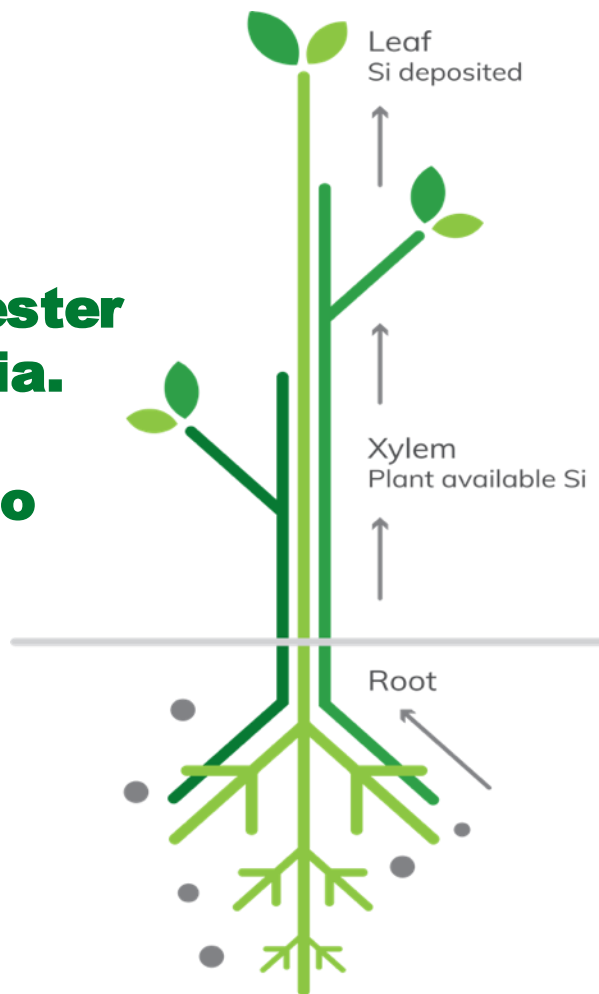
Agrisilica® : only nutrient able to capture and sequester carbon for millennia.

Agrisilica® : able to reduce agri-GHG emissions N₂O and CH₄

PAS – Plant Available Silicon
N P K – Nitrogen, Phosphate, Potassium
N₂O – Nitrous Oxide (greenhouse gas)
CH₄ – Methane (greenhouse gas)
H₂O – Water
ROS – Reactive oxidative species

¹ photoassimilates are compounds produced by photosynthesis e.g sugars

² ROS are toxic by-products of metabolism that increase under abiotic and biotic stress.



The PAS Effect on **WATER**

Increases water-use efficiency throughout plant
Reduces water-loss from leaves (transpiration)
Reduces need for heavy irrigation



The PAS Effect on **NPK & GHG EMISSIONS**

Counteracts negative effects of excessive N
Decreases nutrient leaching and runoff
Decreases N₂O (Nitrous Oxide) emissions & denitrification
Decreases CH₄ (Methane) emissions
Increases greater root area for nitrogen uptake
Increases nutrient-use efficiency and retention in cropland
Increases fixation of nitrogen in plants by rhizobia



The PAS Effect on **CARBON**

Reduces physiological stress - photosynthetic rate continues
Reduces reactive oxidative species (ROS) production²
Increases biomass carbon accumulation
Increases photoassimilates production¹
Increases net photosynthetic rate
Increases carbon immobilization in phytoliths

Agrisilica® - Solutions for Climate Smart Agriculture

The importance of Plant Available Silicon (**PAS**)



PAS: Environmental Impact
PAS: Financial Impact

PAS-rich
Agrisilica®

Applied Agrisilica® has
ZERO EMISSIONS.

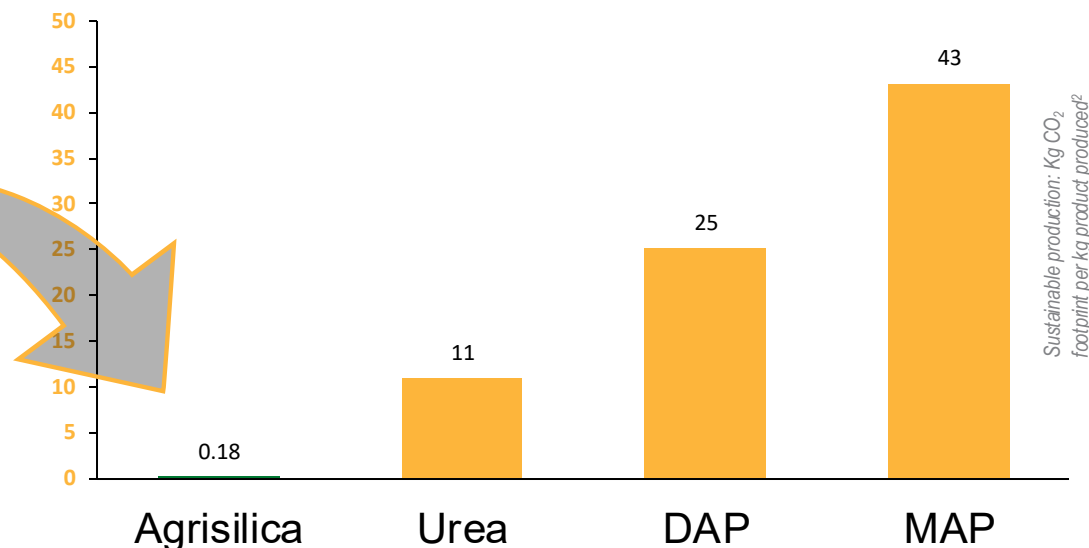
Agrisilica® increases
carbon sequestration by
an additional 2 to 9 tonnes
per 1 tonne of Agrisilica®
deployed.

**10M tonnes of Agrisilica®
deployed p/a will capture
20 to 90Mt/pa of CO₂. This
equates to 20M-90M carbon
credits per year.**

Agrisilica® Lowers Agriculture's Carbon Footprint

Agrisilica® has a production carbon footprint of only 0.18 t CO₂ e/tonne

compared to traditional fertilizers (NPK, Urea, etc) at ~30:00 t CO₂ e/tonne or greater



- Co-Blending Agrisilica® with traditional fertiliser means fertiliser use in the EU will incur a lower carbon tax
- Co-blending Agrisilica® with traditional fertiliser results in a lower carbon footprint of the crop produced
- The world's largest food producers must reduce their carbon footprint due to legislation mandating the reporting of their "scope 3 emissions". Fertilisers are the largest input into the carbon footprint of food producers' supply chains.

Agrisilica® Reduces Agriculture's Carbon Footprint

Western Sydney University Wheat Trials demonstrating reduced carbon footprint, and increased carbon sequestration and crop yields... even under drought conditions.

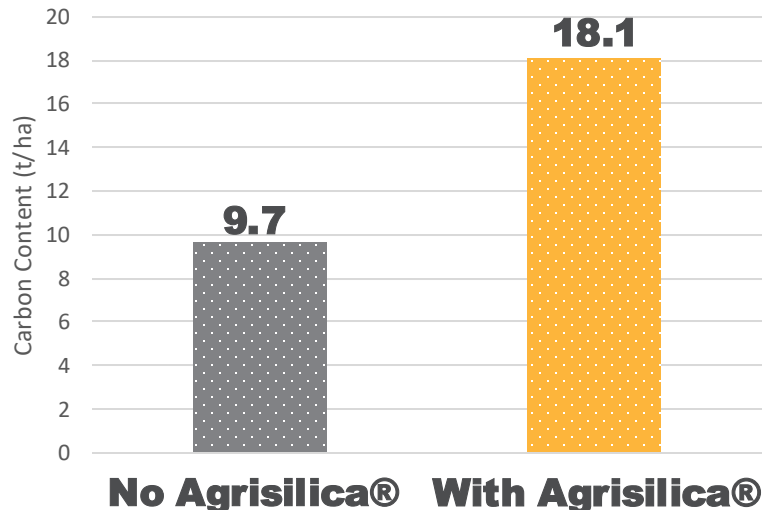
Carbon Footprint Calculations		NPK Without Agrisilica®	NPK With Agrisilica®
Total Fertiliser Application Rate T per Ha		0.14	0.29
Fertiliser t CO ₂ e per T Applied		0.364	0.392
Yield per Ha tonnes		5.70	8.50
Carbon Footprint per T of crop produced		0.064	0.046
Carbon Footprint Reduction per T of Wheat Produced %			28
RESULT	49% yield increase 28% carbon footprint reduction 83% carbon sequestration increase		

Only nutrient able to capture & sequester Carbon

Brazil Trials Biomass Carbon Content Increased by 86% in Sugarcane

Aug 2022 – Oct 2023 | Trial in Pernambuco State
by Universidad Federal Rural de Pernambuco Brazil and
Trapiche Sugar Mill Agronomists.

- Carbon content in sugar cane increased from 9.7 tonnes to 18.1 tonnes/hectare.
- Total sugarcane yield increased from 72.1t/ha to 133.8 t/ha

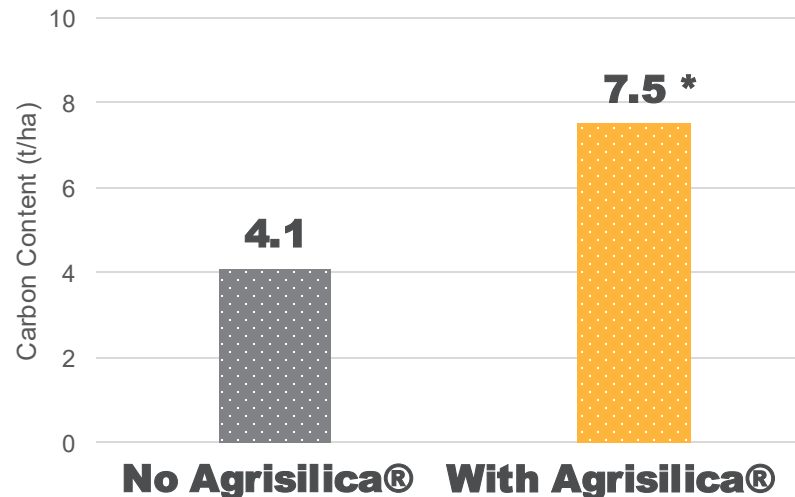


Australian Trials - Biomass Carbon Content In Drought Conditions Increased by 83% in Wheat

Scientific trials conducted by Western Sydney University
proved that **under both well-watered and droughted
conditions with granulated silicon fertiliser Carbon
sequestration was significantly increased.**

* Indicates significance $P < 0.001$

See paper: <https://doi.org/10.3389/fpls.2022.1030620>



*Agrisilica® trials in
Brazil demonstrate
that for every
1x tonne of
Agrisilica®
applied to sugar
cane, as much as
an additional
9 tonnes of Carbon
is locked up.*

**Agrisilica® provides
opportunities
for Carbon Trading**

Agrisilica®: Reducing Agri's N₂O & CH₄ GHG Emissions



PAS-rich Agrisilica® works to reduce agriculture's most dangerous emissions, Nitrous Oxide (N₂O) & Methane (CH₄) via two specific pathways: increasing **NUE (Nutrient Use Efficiency)** and increasing **WUE (Water Use Efficiency)**.

1. Agrisilica® increases uptake of applied nutrients and increases crop yields (**thereby improving NUE**). For example, in 12 replicated trials conducted by Indian Universities in rice:
 - i. **Nitrogen by 16%** - increasing Nitrogen Fertiliser uptake enables the potential reduction in Nitrogen Fertiliser application, leading to a reduction in Nitrous Oxide (N₂O) emissions.
N₂O emissions are around 300x more potent than CO₂;
 - ii. **Phosphorus by 23%; and**
 - iii. **Potassium by 18%.**
2. Agrisilica® increases Water Use efficiency by influencing transpiration and photosynthesis rates, particularly when crops are under drought stress, resulting in larger root systems able to capture more water and nutrients, leading to increased crop production. Additionally, Agrisilica® can hold up to 150x its weight in water and can assist in seedling germination and survival in dry environments. Trials have shown that irrigation rates can be reduced (by up to 40%) without any yield penalty by applying Agrisilica®. Agrisilica® application can also assist in aerobic rice growing systems, reducing permanent water and reducing Methane (CH₄) emissions. *CH₄ emissions are around 80x more potent than CO₂.*

1. Włodarczyk et al. Effect of silicon on barley growth and N₂O emission under flooding. Sci Total Environ. 2019 Oct 1;685:1-9. doi: 10.1016/j.scitotenv.2019.05.410. Epub 2019 May 29. PMID: 31170590.

Reducing Agri's N₂O Emissions with Agrisilica®

Low nutrient use efficiency (causing microbial processes of nitrification and denitrification) in agriculture is the main source of N₂O emissions.

“...Si proven to reduce emissions of N₂O by influencing the denitrification process”.

(Song 2017, Włodarczyk 2019)

Nitrogen losses are costly to farmers, and to the planet. PAS increases the production of carbon and humic acid in soil from increased plant growth. Humic acid stabilises fertilisers. Highly leachable urea (a nitrogen fertiliser) becomes a stable urea humate. Uptake in plants is increased through increased root and canopy growth from PAS, providing greater root area for nitrogen uptake.

Rice & Agrisilica®:

- Physiologically promotes ammonium assimilation and restrains the increase in water soluble nitrogen compounds, including amino acids and amid decreasing losses through run off⁽³⁾
- Improved Nitrogen use by altering the primary metabolism with remobilization of amino acids to grains and hence increased crop yield⁽³⁾ and reduced N₂O emissions
- Improves the fixation in plants of nitrogen (N₂) by rhizobia (bacteria that fix nitrogen)⁽²⁾⁽³⁾

Barley & Agrisilica®:

- Increased denitrification process and reduces intensity of oxidative damage
- Improved availability and efficiency of silicon as nutrient
- All of which result in reductions of N₂O run-off, leaching and N₂O

Legumes & Agrisilica®

- Improves nodulation with subsequent increases in nitrogen fixation^(5,6) increasing soil nitrogen levels and reducing N fertiliser applications

Notes:

1. Włodarczyk T, Balakhnina T, Matichenkov V, Brzezińska M, Nosalewicz M, Szarlip P, Fomina I. Effect of silicon on barley growth and N₂O emission under flooding. Sci Total Environ. 2019 Oct 1;685:1-9. doi: 10.1016/j.scitotenv.2019.05.410. Epub 2019 May 29. PMID: 31170590. 2. Meena et al., 2014. 3. Takahashi, 1996.



Sugarcane & Agrisilica®:

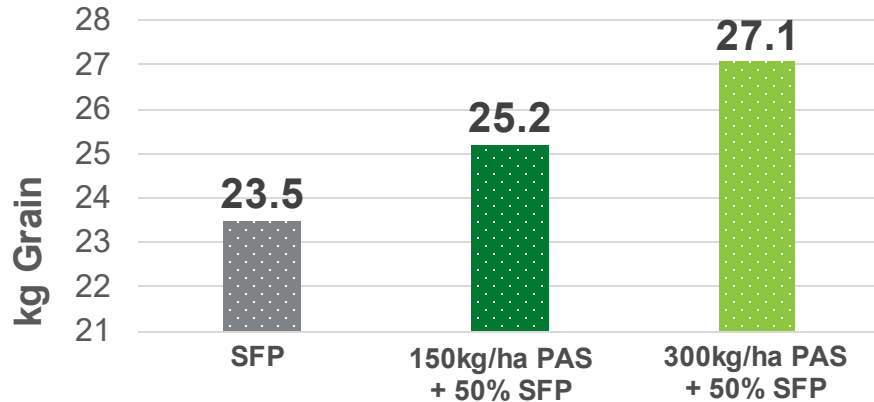
- Increases chlorophyll content and photosynthetic capacity, reduces the transpiration rate and increases nutrient uptake⁽²⁾.
- Associated with lignin-carbohydrate complexes in the cell wall of epidermal cells of sugarcane⁽²⁾
- Suppresses the activity of certain enzymes particularly invertase, resulting in greater sucrose production⁽²⁾⁽³⁾
- Increases phosphate and potassium uptake by 40-70% and 20% respectively...

all of which combine to reduce N₂O losses by as much as 40%

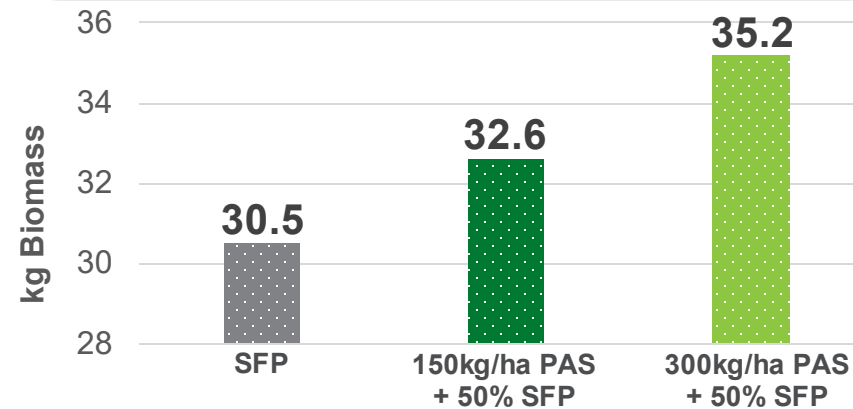
“...the application of (PAS) to the soil can reduce greenhouse gas emissions and reduce the impact of global climate change on agricultural activity.”¹

Agrisilica® Reduces N₂O Emissions While Increasing Yield

NUE: kg Rice Grain / kg Applied NPK



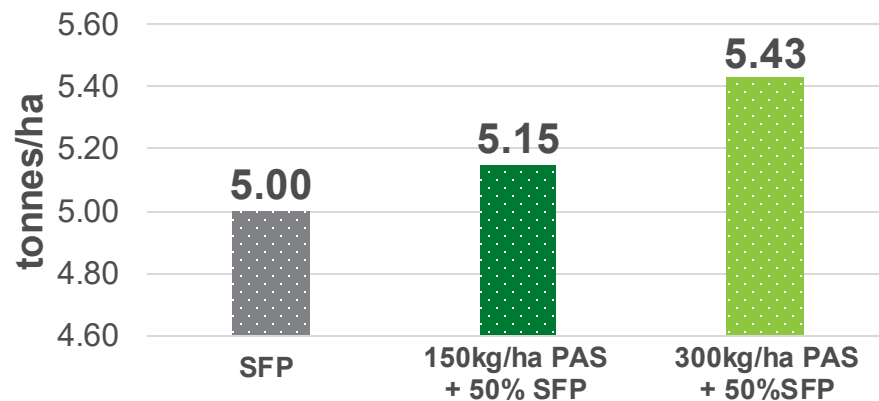
NUE: kg Rice Biomass / kg Applied NPK



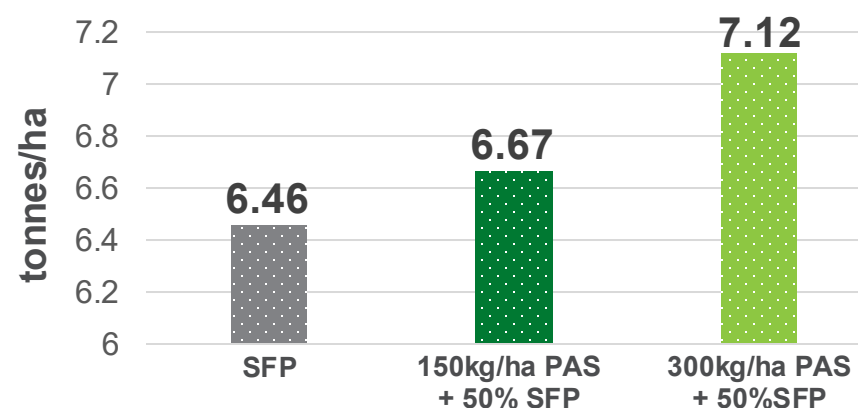
University trials conclusively showed significant yield increases due to improved fertiliser uptake utilisation within the plant by applying PAS (Si fertiliser) with 50% NPK.*

Grain yield increased by up to 8.6% and straw yields by up to 10.2%

Rice Grain Yield (t/ha)



Rice Straw Yield (t/ha)



Applications of granulated PAS (Si fertiliser).

Results show more grain and biomass produced per kilogram of NPK applied.

*Average of 12 replicated university trials in rice (University of Agricultural Sciences Bengaluru, Annamalai University Tamil Nadu). SFP: Standard Fertiliser Practice – 100kgN/ha, 50kgP₂O₅/ha, 50kgK₂O/ha

Reducing Agri's CH₄ Emissions with Agrisilica®



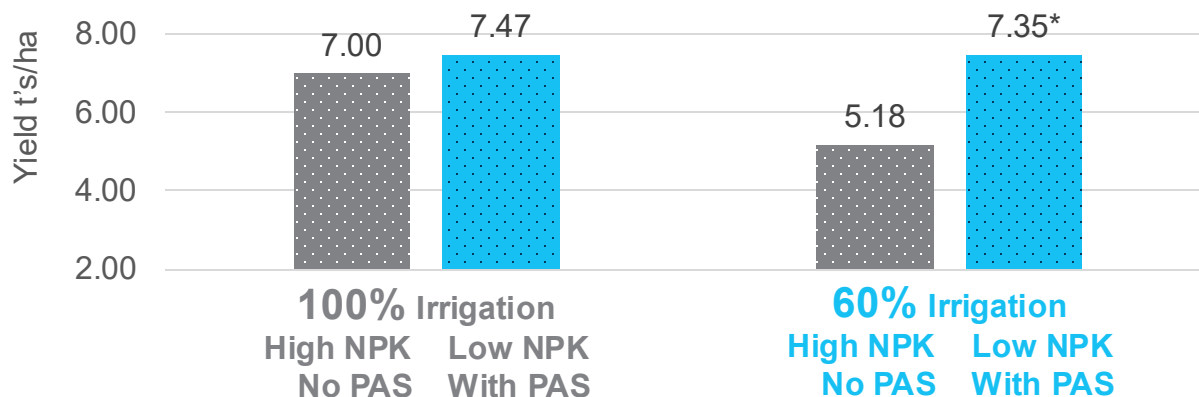
Agrisilica® Reduces CH₄ emissions by increasing 'Water Use Efficiency'

- ✓ **Crops grown with Agrisilica® generally require less water and therefore may result in reduced CH₄ emissions.** Crops produced in standing water such as rice create conditions that produce CH₄ - methane gas. Methane-producing bacteria (methanogens) convert soil carbon into methane which is released into the atmosphere. Farming rice using intermittent watering systems or farming dryland rices reduce the incidence of anaerobic conditions and the growth of methanogens will produce less CH₄ emissions.
- ✓ **Trials using Agrisilica® record improved rice yields and Harvest Index:** Research has indicated that by improving rice yields, and specifically the Harvest Index (mass ratio of grain yield and total above-ground dry matter), reduced overall CH₄ emissions.
- ✓ **Crops grown with Agrisilica® demonstrate improved performance and resilience under damaging high UV-B conditions.** High UV-B conditions can damage crops which results in higher CH₄ emissions. In plants exposed to UV-B, Si can increase the activity of the photosynthetic apparatus, decrease the transpiration rate, increase the antioxidant capacity, and lower the concentrations of reactive oxygen species (ROS) and protective phenol substances, in comparison to plants exposed to UV-B without Si treatment⁽³⁾.

Notes:
3. Meena et al., 2014

Reducing Agri's CH₄ Emissions with Agrisilica®

Maize Yield per Ha with differing Irrigation, NPK and PAS Treatments



*Significant difference $P < 0.05$

	N kg/ha	P ₂ O ₅ kg/ha	K ₂ O kg/ha	PAS kg/ha
HIGH NPK / NO PAS	171	68	68	0
LOW NPK / WITH PAS	144	40	56	66

Application of PAS fertiliser significantly increased yields using less NPK and less water. Field trials have proven...

- Improved crop yield with 60% of recommended irrigation rate
- Increased yield per litre of applied irrigation
- Lower irrigation usage and costs

Replicated trial conducted on maize by Universidad De la Rioja, Spain.

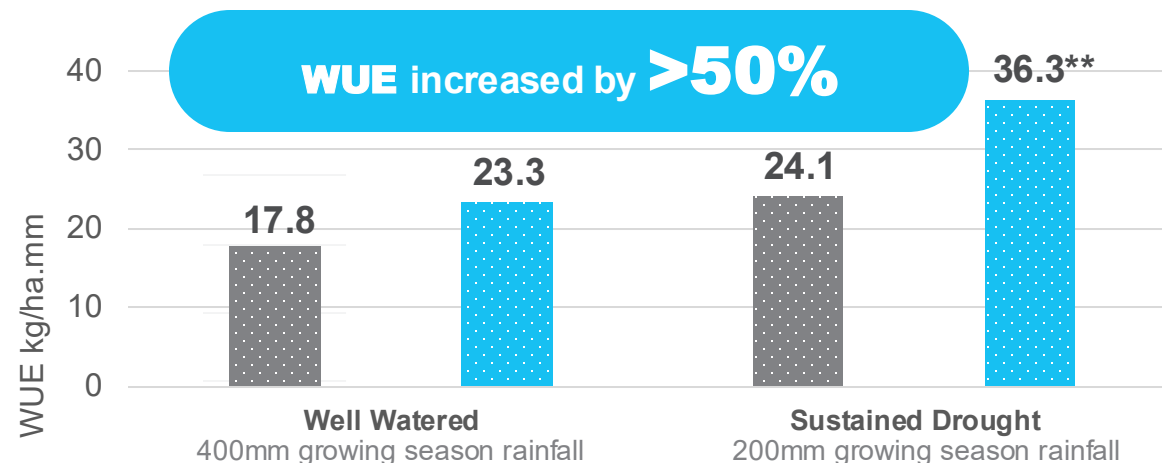
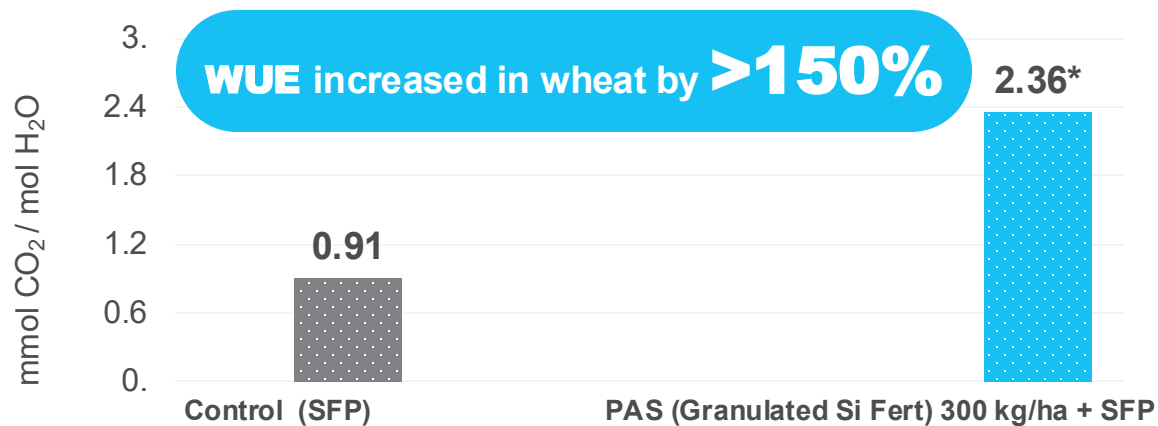
PAS has been demonstrated to improve crop tolerance to drought and improve WUE (over 60 published reports in the past 10 years). Known modes of action include:

- ✓ Silicon fertilisation maintains/increases the photosynthesis of plants under drought stress. The result is that the crop is able to produce a higher root-to-shoot ratio with a proliferation of fine laterals, allowing it to explore deeper soil strata.
- ✓ Reduced water loss through transpiration losses. Silicon is deposited in leaf epidermis (apoplast), where it forms a physical barrier reducing water loss through plant stomata and leaves.²
- ✓ Lowers plant root hydraulic conductance.²
- ✓ Reduced oxidative damage (by increasing antioxidant enzyme activity) and reduced electrolyte leakage.²
- ✓ Altering gene expression.²

¹ Rastogi et al (2021) Plant Physiology and Biochemistry 169 (2021) 40-48

² Thorne et al. (2020) Frontiers in Plant Science Volume 11 Article 1221

Reducing Agri's CH₄ Emissions with Agrisilica®

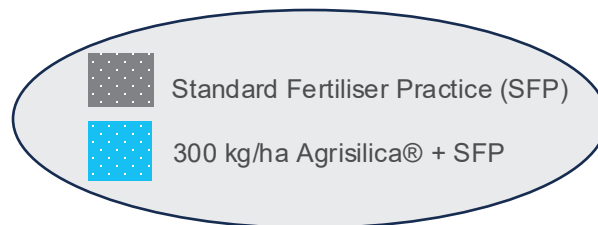


Field trial carried out by ICAR National Institute of Stress Management, India

Improved WUE was due to significantly*

1. increased photosynthesis (+98%)
2. reduced transpiration rate (-7%)
3. reduced white ear damage (-45%)
4. and increased yield (+61%)

Silicon content in plant stem tissue at harvest significantly* increased (>160%)



Field trials conducted by University of Western Sydney Australia Under Sustained Drought Conditions, using PAS (Si fertilizer)

1. WUE significantly increased by up to 51% (kg grain produced per mm irrigated)
2. Shoot Mass significantly increased by up to 72%
3. Yield significantly increased by up to 49%

Johnson S.N. et.al. 2022. Western Sydney University Australia

* Statistically significant difference between PAS treatments and nil PAS treatment P<0.05

Jeer et al 2021. Silicon 13 901-920

Statistically significant difference between PAS treatments and nil PAS treatment * P<0.05, ** P<0.01

SFP = Standard Fertiliser Practice 80kgN/ha, 50kgP₂O₅/ha

Game-Changer for Global Agriculture

Food Security | Environment | Climate Change

Global game-changer
Solutions for food security, the
environment & emissions



Almost zero
carbon footprint.
**Applied Agrisilica®
has Zero emissions.**
Reduces carbon footprint
of food, fibre & fodder
production.

Economic benefits			Sustainability benefits		
		Crop Yield, by up to 120%			Increased carbon sequestration
		Crop resilience against stress			Reduced atmospheric CO ₂
		Crop Quality, Value & Shelf Life			Carbon Trading potential
		Soil moisture, health & fertility			Increased soil carbon
		Heavy metal contamination			Uptake of NPK & other nutrients
		Water usage			Protection of ecosystems
		Nutrient run-off & leaching			Reduced N ₂ O emissions
		Crop losses			Reduced CH ₄ emissions
		Farmer Profits, increased by up to 40%			Pollution & GHG Emissions Reduced



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