

Technical Data Sheet

BETTAGROW Silicon

Liquid Silicon Nutrient Supplement

Act 36, Group 2 – Pending Registration

1 Registration Holder, Supplier & Manufacturer

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2 Functional Role of Silicon (Compliant)

BETTAGROW™ SILICON supplies silicon in a readily plant-available form. Silicon is regarded as a beneficial element in crop production systems and:

- Contributes to strengthening of plant structural tissues
- Supports normal physiological processes
- Assists crops in tolerating abiotic stress conditions (e.g. drought, heat, mechanical stress)
- Supports crop performance under intensive production conditions

This product contains silicon in a plant-available orthosilicic acid form, enabling rapid foliar uptake.

3 Mode of Action

Silicon is absorbed through foliar application and translocated within the plant. It is deposited in structural tissues, contributing to improved plant rigidity and supporting normal metabolic activity, particularly under environmental stress conditions.

4 Composition

Component	Specification
Orthosilicic Acid(stabilised)	3.2% m/m
Silicon form	Monomeric, plant-available
Other ingredients	Water and stabilising agents
Appearance	Colourless Liquid
Odour	Mild
Density (20°C)	~1.00 - 1.05 g/ml
pH	2.5 - 3.5

5 Application Guidelines

5.1 Ground Foliar Application

Parameter	Recommendation
Application Rate	6 - 8 mL/ha
Water Volume	20 - 30 L/ha
Applications	2-3 per season
Interval	10 - 21 days
Apply during active vegetative growth stages	

5.2 Aerial Application, Fixed-Wing or Helicopter Application

Due to reduced spray volume and increased drift potential, per-hectare product rates remain the same, while water volume is adjusted.

Parameter	Recommendation
Application Rate	6 - 8 mL/ha
Water Volume	10 - 20 L/ha
Droplet Size	Medium to coarse
Applications	2 - 3 per season
⚠ Do not increase product concentration to compensate for reduced spray volume	

6 Crop Application Guidelines

Crop	Growth Stage
Maize	V5 - V6, pre-tassel
Soybean	V4 - V6, early flowering (R1 - R2)
Wheat	Tillering, flag leaf
Canola	Rosette, early flowering
Sunflower	6 - 8 leaf, bud stage
Potatoes	Vegetative growth, tuber initiation
Vegetables	Active vegetative growth
Repeat applications based on crop demand and environmental conditions	

7 Mixing and Compatibility

Mixing Instructions:

1. Half-fill tank with clean water
2. Add BETTAGROW™ SILICON
3. Maintain agitation
4. Fill to final volume and apply immediately

Compatibility:

Compatible with most liquid fertilisers, biostimulants, amino acids and humic and fulvic acids

Avoid mixing with:

- Highly alkaline products
- Unbuffered calcium salts
- Strong oxidising agents

A jar compatibility test is recommended prior to tank mixing.

8 Application Precautions

- Apply during cooler parts of the day
- Avoid spraying during high wind conditions (especially aerial application)
- Do not exceed recommended rates
- Avoid application to severely stressed crops

9 Storage and Handling

- Store in original, sealed container
- Keep in a cool, dry, well-ventilated area
- Protect from direct sunlight and freezing
- Keep away from food and feed
- Shelf life: Minimum 12 months under recommended storage conditions

10 Safety and Precautions

- Use only as directed
- Avoid contact with eyes and skin
- Wear appropriate protective clothing during handling
- Keep out of reach of children and animals

11 Disclaimer

This product is a fertilizer supplement supplying silicon. It is not registered as an agricultural remedy and is not intended to control pests, diseases, or weeds.