



'plant repair therapy' – targeted, efficient and effective.

Silicon

# **Features and Benefits**

**Quality manufacture** using superior materials to formulate reliable, stable and trusted products with the highest level of quality control.

Bypasses soil deficiency by applying the most efficient method of delivering the plant's immediate nutrition needs through the leaf.

**Fixes plant nutrient deficiency** as it reduces silicon requirements from the soil, instead delivering them through the leaf.

Improved leaf erectness and stem strength and aids the control of iron and manganese toxicity.

**Reduced lodging** because of the improved cellular structure of the plant.

Easy application and compatibility with immediate plant uptake and proven compatibility with a wide range of crop protection chemicals.

Handles environmental conditions better because it gives the plant more energy to deal with environmental stresses associated with inadequate rainfall, changing weather patterns, variations in soil, pests and other external conditions.

**Silica Plus** is a single element foliar fertiliser delivering high quality silicon to the plant through the leaf when a silicon plant disorder is recognised and established. Foliar application is the most efficient and effective way to deliver silicon to the plant as it bypasses the soil hurdles by delivering the remedy directly to the crop through the leaf.

**Silica Plus** fixes plant silicon (Si) deficiency which is caused by insufficient silicon in the soil to play its part in the physiology of the plant. It is instrumental in improving plant strength and yield.

Whilst the need for silicon (Si) for higher plants remains questionable, its role as a beneficial element in improving plant growth and yield and increasing plant resistance to fungal diseases is amply demonstrated. Application of silicon fertilisers is common in crop production especially in small cereals like rice, as well as in sugarcane. These silicon accumulator plants contain up to 10% silicon in their dry weight (more than any essential nutrients) thus depleting soil available silicon.

Silicon in rocks ranges from 23% to 47%. Upon weathering, rock releases silicon dioxide which in soil solution is dissolved as silicic acid (H4 SiO4) in acid soils or silicate salts.

Deficiency of silicon in plants occurs when uptake of silicon is more than the rate of release of silicon from soil minerals. Secondary silicates such as clay minerals and biogenic silicon of plant remains (e.g. diatoms) also contribute to silicon supply pool for plant uptake.

Absorption of silicic acid by roots can be passive or active. Some plants like radish, tomato, onion, capsicum and coffee accumulate silicon more in root than shoot.

Silicon that is transported to shoot incorporates into organic compounds of the cell wall (lignin and polysaccharides), strengthening the cell wall structure with reduced lodging, better physical resistance to entry of spores and mycelium of fungi and more resistance to aphids and borers to penetrate and feed on leaves when silicon is impregnated in the cell wall in sufficient amounts.

Silicon is also attributed to lowering toxicity of heavy metals by their oxidation or tying of the heavy metals to silicate anions in cell wall. Silicate can improve crop yield when the phosphorus level is suboptimal.











# **Foliar Fertiliser**

#### METHODS OF APPLICATION



Foliar Fertiliser to Spray onto the Crop Leaf



Manual Application



**Machine Application** 



Rain Safe in 2 hours

#### APPLICATION GUIDE

#### Specific Rates

Сгор Туре	Carrier Rate Litres/hectare	Application Rate (Litres/hectare)	
Wheat (all Cereals) Corn Canola Dryland Pasture Hay Fodder Crops (oats, millet, sorghum, turnip and other forage brassicas) Fruit trees and Vegetables	1L to 50L to 1L to 100L	2-6 Litres/hectare (L/ha)	Note: 2-3 weeks is required before foliar application can be repeated

#### **Recommended Timings**

<b>3</b>				
Сгор Туре	Number of Applications  Minimum Preferred	Timing for Application		
Wheat (all Cereals)	1 to 2 times	Good canopy formation into grain filling (avoid anthesis)		
Corn	1 to 2 times	Good canopy formation into grain filling (avoid silking)		
Canola	1 to 2 times	Good ground cover to early flowering		
Dryland Pasture	1 to 2 times	Good ground cover after each grazing in winter or early spring		
Hay	1 to 2 times	Good ground cover when shut for hay or silage		
Fodder Crops (oats, millet, sorghum, turnip and other forage brassicas)	1 to 2 times	Good ground cover and after each grazing when re-growth is expected		
Fruit trees and Vegetables	1 to 2 times	Good ground cover and after each grazing when re-growth is expected		



Fertigation via Irrigation or Sprinkler Systems



Manual Application



Irrigation Systems



Crop Type	Litres / ha per Irrigation	Number of Applications per season / year
Young Vnes, Olives and Citrus trees Mature Vines Mature Olives & Citrus trees Other mature Fruit Trees Vegetable Crops Irrigated Pastures	10 Litres 20 Litres 20 Litres 20 Litres 20 Litres 20-30 Litres	Bimonthly to monthly Bud burst and before flowering Before flowering and post harvest Up to flowering and after harvest Early vegetative growth and as required After each cut or grazing or as required

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Shake Vigorously



Mix with Water



Mix with other Chemicals



1

# PRODUCT COMPATIBILITY + JAR TESTING

DO NOT mix with alkaline copper fungicides or inoculants. DO NOT mix with acid products. If you are unsure, we recommend a simple jar test of products. Mix together and check if reaction occurs.



# Non-toxic product. Avoid unneeded contact. Keep out of the reach of children. If contact is made with eyes, immediately rinse with plenty of water. If swallowed, seek medical attention.

#### ANALYSIS AND PRODUCT ASSURANCE

## RLF

Australian-owned Formulator, Manufacturer and Supplier of High-analysis Broad-spectrum Liquid Fertiliser technologies. For over 25 years RLF's products have been used by millions of farmers and growers world-wide. ISO 9001 Quality Assured Company since 1998.



# MACRO NUTRIENT

Potassium (as K<sub>2</sub>0)

# MICRO NUTRIENT

Silica (as SiO<sub>2</sub>)



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