

Introducing:

**ZumSil®**  
Monosilicic Acid 20%



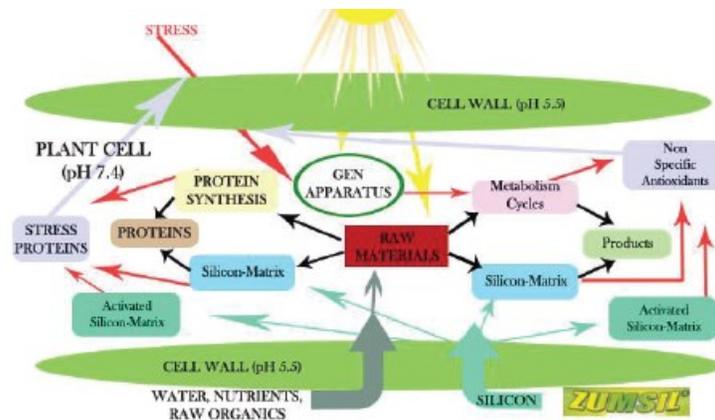
## The Silicon Solution

Silicon is the most abundant mineral on earth's crust however is insoluble and not plant available. Clay soils are made up of Aluminum silicates, sand is mainly silica. Plants can only absorb Silicon as monosilicic acid, or plant available Silicon.

## Importance of Silicon

### Promotes more Roots:

Monosilicic acid accumulates at the epidermis of the elongation zone and primarily in the tip of the root where it is transformed into quartz, facilitating the penetration of the root through soil surfaces and increasing root mass and development.



### Creates Strong Leaves and Stems:

Silicon fortifies the cuticle and epidermal tissue. It also forms an external layer that protects the tissue of live cells. At the same time it makes the leaves hard but also flexible and improves the photosynthesis and carbon dioxide collection.

Reduced lodging.

Silicon concentrates on the epidermal tissue as a fine layer of S-Cellulose membrane, and interacts with the pectin and calcium ions.

### Strengthens Plant Defense Systems:

Diminishes abiotic stresses caused by salinity, frost, heavy metal concentrations in the soil, heat/drought, excess water, wind, etc.

Provides physical protection against insects and pathogens by providing a protective barrier

Improves absorption of sunlight by the plant

Enhances available Calcium and Potassium

Promotes the growth and development of flowers and fruits

**Builds stronger and Healthier Crops:**

Increased levels of Chlorophyll  
Promotes more efficient use of Carbon Dioxide  
Better formation of tertiary and secondary roots is controlled by monosilicic acid in the soil

**Increases Production and Quality:**

Increases Brix  
Increases crop production  
Increases protein in grains  
Extends shelf life  
Decreased use of irrigation water volumes.

**Increases mineral availability and uptake:**

Increased availability of Phosphate  
Reduced uptake of toxins and heavy metals  
Increased CEC resulting in better nutrient availability

**Management of heavy metal toxicities in soil**

Aluminium  
Zinc  
Iron



Contact your local rep or office for more details



Soil Solutions Inc.

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