



AL@CHEMIST[®]
STOUT MIST

GROW ROOM SOLUTIONS

What is Silicic Acid?

- *Silicic Acid is the most bio or plant available form of Silicon.*
- *There are many forms of Silicon all which have varying degrees of solubility and plant availability.*
- *Like most things in chemistry molecular size and structure depict function.*
- *Silicates are much different then silicic acid as phosphate rock is much different then plant available P2O5 phosphate.*

Availability equals Predictability

- *Potassium Silicate (most common form used in our industry) is not completely Bioavailable, because of this it is not predictable as far was when it is broken down and then made available to the plant.*
- *This makes it less affective because growers don't truly know when and if the Potassium Silicate that they are using is giving them the desired effect. Insoluble forms of Silica (rock dust) are even less predictable and harder to manage.*
- *Mono Silicic Acid (aka Ortho Silicic Acid) is 100% available immediately, giving it a high degree of predictability and thus making it more effective than these other forms of Silicon.*

Immobile Nutrient

- *Availability and predictability are important because Silicon is an immobile nutrient, this means once it is transported into the plant it cannot be moved to other parts of the plant. This means that a steady flow of Silicic Acid is needed to take full advantage of its many benefits.*
- *By using a 100% available immediate form of Silicon growers know that they are getting silicon throughout the plant that they can be sure is working and benefiting them.*

What makes Stout MSA different?

- **Digested Quartz-** *Stout MSA starts from Quartz and goes through a proprietary digestion process that leads to a more stable product because it is manipulated less.*
- **Purity-** *this unique manufacturing process leads to a very pure product that does not have added potassium or other nutrients giving the grower more control over what the crop is receiving. Also the product does not add much conductivity to the nutrient solution.*
- **Concentration/Price-** *Stout MSA is in a more familiar format in regards to application rates (5ml per gallon). This makes it much easier to use with a variety of dosers. Stout MSA is cheaper per application than any Silicic Acid on the market.*

What will it do for my plants?

- *Help improve resistance to stress (Heat, Cold, and High Salinity)*
- *Create thicker cell structure, branches and stems*
- *More uniform plant growth and lateral branching*
- *Improves uptake and absorption of nutrients*
- *Helps regulate Stomatal Conductance (transpiration)*
- *Improves germination process*
- *Because of these benefits it can produce healthier plants with higher yields*