CERTIS USA

The Biopesticide Company

AgSil®

BIONUTRIENT

Soluble Silicate for Agriculture

AgSil potassium silicate helps plants to resist toxicity from phosphorous, manganese, aluminum and iron and increases tolerance to salt[1]. AgSil potassium silicate also aids in resistance to drought by reducing water loss, and in some cases it may increase growth and yield[1-5].

Always read and carefully follow label directions.

AgSil® Potassium Silicate: Soluble Silicate for Agriculture

AgSil® potassium silicate offers growers these performance benefits in many agricultural applications:

- Provides resistance to mineral stress
- Decreases climate stress
- Improves strength
- Increases growth and yield

Application of AgSil potassium silicate improves leaf erectness, reduces susceptibility to lodging in grasses and improves photosynthesis efficiency[1]. For turf this can result in faster, healthier greens and athletic fields. Row crops, vine crops, ornamentals and hydroponically grown plants can all benefit from potassium silicate supplementation.

AgSil potassium silicate provides a soluble source of silicates and supplementary potassium for plants.

Product	% K_2O	% SiO_2	% H_2O	Description
AgSil 21	12.7	26.5	60.9	liquid pH 11.7
AgSil 25	8.3	20.8	70.9	liquid pH 11.3
AgSil 16H	32.4	52.8	14.8	hydrous powder

Hydrous AgSil potassium silicate powders can be used in dry mix applications for land spreading. They may also be dissolved in other formulations (subject to compatibility) where additional water is not desired.

Approximate AgSil Potassium Silicate Application Rates

Nutrient Solution – 100 ppm SiO_2 (w/w)		
	AgSil 21	**AgSil 25**
Lb. (fl.oz) in 100 gal. H_2O	0.32 lb. (3.5 oz.)	0.40 lb. (4.9 oz.)
ppm K_2O	48	40
Foliar Spray – 1,000 ppm SiO_2 (w/w)		
	AgSil 21	**AgSil 25**
Lb. (fl. oz.) in 100 gal. H_2O	3.2 lbs. (35 oz.)	4.0 lbs. (49 oz.)
ppm K_2O	485	400

Warning: Call for information on tank-mixing compatibility.

References

1. Marschner, H., Mineral Nutrition of Higher Plants. Academic Press, 1995, pp. 417-426, 440-442.

2.Datnoff, L.E., et al., "Influence of Silicon Fertilizer Grades on Blast and Brown Spot Development and on Rice Yields," Plant Disease, October 1992, pp. 1011-1013.

3. Miyake, Y. and E. Takahashi, "Effect of Silicon on the Growth of Cucumber Plant in Soil Culture," Soil Sci. Plant Nutr., 29(4), 1983, pp. 463-471.

4. Miyake, Y. and E. Takahashi, "Effect of Silicon on the Growth and Fruit Production of Strawberry Plants in a Solution Culture," Soil Sci. Plant Nutr., 32 (2), 1986, pp. 321-326.

5. Miyake, Y. and E. Takahashi, "Silicone Deficiency of Tomato Plant," Soil Sci. Plant Nutr., 24, 1978, pp. 175-189.

6. Schmidt, R.E., et. al., "Response of Photosynthesis and Superoxide Dismutase to Silica Applied to Creeping Bentgrass Grown Under Two Fertility Levels," J. Plant Nutrition, 22 (11), 1999, pp. 1763-1773.

7. Posters presented at Silicon in Agriculture Conference, Sept. 26-30, 1999, Ft. Lauderdale, FL. "Effects of Silicon on the Seedling Growth of Creeping Bentgrass and Zoysiagrass," by Z. Linuan et al., China Agricultural University; "Influence of Silicon and Host Plant Resistance on Gray Leaf Spot Development in St. Augustine grass," by L.E. Datnoff and R.T. Nagata, University of Florida.

8. Chen, J., et al., "Let's Put the Si Back into Soil," University of Florida, Mid-Florida Research and Education Center, Apopka, FL.