BIO PLANT

SilicAlex

Plant Stress Management™ and Equilibrium Farming Product

Registration: Pending

AGRI LIBRIUM
Restoring Natures Balance

MANUFACTURED & DISTRIBUTED BY
Agrilibrium (Pty) Ltd.
No 3, 6th Avenue, Suite # 5, Melkbosstrand 7441
Cape Town South Africa
Tel +27 21 553 3486
www.agrilibrium.co.za
MANUFACTURED IN SOUTH AFRICA

SilicAlex is a unique amino-acid chelated product containing the nutritional elements in combination with the additional biochemical stimulation of Phytoalexin production supports the plant's ability to naturally and inherently increase the plants resistance to pests and diseases. **SilicAlex** is a unique amino-acid chelated product containing the nutritional elements in combination with the additional biochemical stimulation of Phytoalexin production supports the plant's ability to naturally and inherently increase the plants resistance to pests and diseases.

PRODUCT CHARACTERISTICS

Silica is an element that is present in grain crops at concentrations >40 mg/kg and in broad leaf crops at 20 – 40 mg/kg and at such high concentrations it is an essential element for plant structure. Silica is directly involved in the formation of a physical barrier of Si deposited beneath the cuticle in plant tissue that have been proposed as the Si-enhanced resistance mechanism to diseases and pests. With the application of Silica it has been shown that in response to fungal infection in cucumber, the concentration of phytoalexins, lignin and phenolic substances increase. Silica was also shown in various publications to alleviate various abiotic stresses including lodging, drought, radiation, high and low temperature, freezing, wind damage and UV irradiation as well as chemical stresses like salt, metal toxicity and nutrient imbalances. SilicAlex should be used as a foliar spray (1-2% in water, 1-2ℓ/100ℓ water to a maximum of 5 liter per ha) with the Phytofulvic acid wetter, FulMax at 100 - 200mℓ/100ℓ water.

STORAGE

Do not store in direct sunlight.
Storage temperature: 13ºC - 25ºC.

DIRECTIONS FOR USE

Use only as directed. Shake well before use. SilicAlex can be applied with other chemicals but then a chemical compatibility test with specific compounds to be used together, should be done at equivalent volumes in a glass before making up large volumes of the different chemicals.

Foliar application concentrations should not be lower than 0.5% (500 mℓ per 100ℓ water) for maintenance applications up to a final maximum spray concentration of 2.0% for rectification of deficiency problems (2ℓ per 100ℓ water) and should preferably be applied separately from other chemicals.

Spray solution water should be buffered between pH 5 and 6. Use at least 0.1% FulMax (100mℓ per 100ℓ water) in the spray mixture to enhance uptake of the nutrients through the leaf surface. Preferably apply foliar spray during cool periods of the day.

COMPOSITION

Silica (Si)	115.5 g/ℓ	105 g/kg
Calcium (Ca)	20.4 g/ℓ	18.5 g/kg
Zinc (Zn)	4620 mg/ℓ	4200 mg/kg
Boron (B)	863.5 mg/ℓ	785 mg/kg
Amino acid	5 %	

PRODUCT PROPERTIES

S.G	1.1 ± 0.02
pH	5.5 ± 1

Amino acid chelated product, a slight residue might be present that will dissipate after shaking of the container. Completely soluble when mixed with water.

AFRI COMPLIANCE

We confirm that AgriLibrium's Manufacturing Plant and Product range conforms to the standards as set down by Afri Compliance Agricultural enhancement product protocols and is certified in terms of:

- Good manufacturing practices
- Quality assurance and traceability
- Good corporate governance
- Risk management
- Bio Security

Cert No.AC/P/2018/143

Contact your Agrilibrium representative to obtain a crop specific Plant Stress Management™ recommendation

BIO PLANT

SilicAlex

Plant Stress Management™ and Equilibrium Farming Product

Registration: Pending

AGRI LIBRIUM
Restoring Natures Balance

MANUFACTURED & DISTRIBUTED BY
Agrilibrium (Pty) Ltd.
No 3, 6th Avenue, Suite # 5, Melkbosstrand 7441
Cape Town South Africa
Tel +27 21 553 3486
www.agrilibrium.co.za
MANUFACTURED IN SOUTH AFRICA

RECOMMENDATION

SilicAlex is recommended as an organic amino-acid Si/Phytoalexin-complex that can be taken up efficiently by leaves to improve resistance to diseases and suppress pest attacks on crops via two mechanisms firstly as a physical barrier beneath the cuticle layer of leaves. Secondly, a biochemical mechanism where Silicon is also known to stimulate phytoalexin production in plants in response to fungal infection. The fact that silicon alleviates various abiotic stresses including physical stress like lodging, high and low temperature, drought and freezing as well as chemical stresses like salt (inhibit Na uptake by roots), high nitrogen, nutrient imbalances and metal toxicity, are well documented.

Optimal application dosage concentration.
Total tank concentration should never be lower than 0.5% (500mℓ/100ℓ) and preferably 1-2% (1-2ℓ/100ℓ).

Crop	Max rate/ha	Rate / volume (ℓ) water	Remarks
Pome Fruit: Apples Pears	**Foliar spray:** 1 % **SilicAlex** + 0.1% FulMax, Maximum 5ℓ/ha/spray.	**Foliar spray:** 1ℓ **SilicAlex** + 100mℓ **FulMax** /100 ℓ tank solution.	**Foliar spray:** Apply as a medium to low volume (500ℓ -1000 ℓ) foliar spray in a regular program commencing during spring (after fruit set). First application 2 weeks after final fruit set with 14 to 21day intervals up to 3 weeks before harvest. **50% wetting sufficient.** **Note restrictions for use on apples and pears.**
Stone Fruit: Apricots, Peaches, Plums **Sub-Tropical Fruit:** Mango, Avocado, Macadamia, Pecan, Bananas, Litchis **Citrus**	**Foliar spray:** 1 - 2% **SilicAlex** + 0.1% FulMax. Maximum 5ℓ/ha/spray.	**Foliar spray:** 1 - 2ℓ **SilicAlex** + 100mℓ **FulMax** /100 ℓ tank solution.	
Grapes: Table grapes Wine grapes	**Foliar spray:** 1 - 2% **SilicAlex** + 0.1% FulMax. Maximum 5ℓ/ha/spray.	**Foliar spray:** 1 - 2ℓ SilicAlex + 100mℓ FulMax /100 ℓ tank solution.	**Foliar spray:** Apply as a medium to low volume (500ℓ -1000 ℓ) foliar spray. First application after fruit set. Last application no later than veraison for table grapes and at pea size for wine grapes.
Root Vegetable: Potatoes Sweet Potato **Other Vegetables:** Tomatoes, Peppers	**Foliar spray:** 1 - 2% **SilicAlex** + 0.1% **FulMax**. Maximum 5ℓ/ha/spray.	**Foliar spray:** 1 - 2ℓ **SilicAlex** + 100mℓ **FulMax** /100 ℓ tank solution.	**Foliar spray:** Apply as a medium to low volume (100ℓ- 250ℓ) foliar spray in a regular program commencing 2 weeks after germination or from 4 leaf stage onwards. Apply at least once every 14 days during the growing season.
Maize, Wheat Canola Soybeans Beans Tobacco	**Foliar spray:** 1 - 2% **SilicAlex** + 0.1% **FulMax**. Maximum 5ℓ/ha/spray	**Foliar spray:** 1 - 2ℓ **SilicAlex** + 100mℓ **FulMax** /100 ℓ tank solution.	Do not exceed **2% application concentration** **Foliar spray:** 2-3 weeks after germination (4-5 leaf stage). If possible, follow up 6 weeks after germination.

- Due to the variation of soil and soil types from area to area, a full recommendation will only be possible once a **soil analysis and 1:2 water extract** analysis has been done.
- Recommendations are also based on requirements for different crop types.

Contact your Agrilibrium representative to obtain a crop specific Plant Stress Management™ recommendation