

Doses and methods of use

Crops	Dosis	Application guidelines
Grapevine Table Grape	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 2.5-4.0 ml/L Foliar Spray: 2.5-4.0 ml/L	In periods of susceptibility to fungal biotic stress (Oidium, Botrytis, Escoriosis, Esca disease). In periods of susceptibility to biotic stress from insects (Mites, Leafhoppers). To promote healing, immediately after pruning and mechanical harvesting. To increase shelf-life and to prevent post-harvest rot, from veraison every 7 days.
Pome Fruits	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 2.5-4.0 ml/L Foliar Spray: 2.5-4.0 ml/L	In periods of susceptibility to fungal biotic stress. In periods of susceptibility to biotic stress from insects. To promote healing, immediately after pruning and harvesting. To increase shelf-life, from veraison every 7 days.
Stone Fruits	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 2.5-4.0 ml/L Foliar Spray: 2.5-4.0 ml/L	In periods of susceptibility to fungal biotic stress. In periods of susceptibility to biotic stress from insects. To promote healing, immediately after pruning and harvesting. To increase shelf-life, from veraison every 7 days.
Berries Strawberry	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 2.5-4.0 ml/L Fertigation: 3-5 L/ha	In periods of susceptibility to abiotic and fungal biotic stresses. In periods of susceptibility to biotic stress from insects. To increase shelf-life, from veraison every 7 days. In periods of susceptibility to abiotic and fungal biotic stresses.
Kiwifruit	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 2.5-4.0 ml/L Foliar Spray: 2.5-4.0 ml/L	In periods of susceptibility to fungal biotic stress. In periods of susceptibility to biotic stress from insects. To promote healing after green pruning and harvesting. To increase shelf-life, 3 applications every 15 days before harvest.
Olive Tree	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 5.0-8.5 ml/L Foliar Spray: 3.5-5.0 ml/L	In periods of susceptibility to fungal biotic stress. In periods of susceptibility to biotic stress from insects. To promote healing, immediately after pruning and mechanical harvesting.
Leaf Vegetables	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 3.5-5.0 ml/L Foliar Spray: 2.5-4.0 ml/L Fertigation: 3-5 L/ha	In periods of susceptibility to abiotic and fungal biotic stresses. In periods of susceptibility to biotic stress from insects. To promote healing after mechanical harvesting. To increase the shelf-life, 2/3 pre-harvest applications every 7 days. In periods of susceptibility to fungal biotic stresses.
Fruit Vegetables	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 2.5-4.0 ml/L Foliar Spray: 2.5-4.0 ml/L Fertigation: 3-5 L/ha	In periods of susceptibility to abiotic and fungal biotic stresses. In periods of susceptibility to biotic stress from insects. To promote healing after mechanical harvesting or pruning. To increase shelf life, from veraison every 7 days. In periods of susceptibility to fungal biotic stresses.
Bulb/root/rhizome Vegetables	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L Foliar Spray: 2.5-4.0 ml/L Foliar Spray: 2.5-4.0 ml/L Fertigation: 3-5 L/ha	In periods of susceptibility to abiotic and fungal biotic stresses. In periods of susceptibility to biotic stress from insects. To promote healing after mechanical harvesting or pruning. To increase shelf life, from veraison every 7 days. In periods of susceptibility to fungal biotic stresses.
Aromatic Plants	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-6.5 ml/L Foliar Spray: 3.5-5.0 ml/L Foliar Spray: 2.5-4.0 ml/L	In periods of susceptibility to abiotic and fungal biotic stresses. In periods of susceptibility to biotic stress from insects. To promote healing after mechanical harvesting. To increase the shelf-life, 2 pre-harvest applications every 7 days.
Hop	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-6.5 ml/L Foliar Spray: 3.5-5.0 ml/L Foliar Spray: 2.5-4.0 ml/L	In periods of susceptibility to abiotic and fungal biotic stresses. In periods of susceptibility to biotic stress from insects. To promote healing after mechanical topping. To increase the shelf-life, 2 pre-harvest applications every 7 days.
Cereals Industrial Crops	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-6.5 ml/L	In periods of susceptibility to fungal biotic stresses. In periods of susceptibility to biotic stress from insects.
Flowers, Ornamental Plants	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 3.5-5.0 ml/L Foliar Spray: 2.5-4.0 ml/L	In periods of susceptibility to abiotic and fungal biotic stresses. In periods of susceptibility to biotic stress from insects. To promote healing after pruning.
Urban Areas	Foliar Spray: 2.5-5.0 ml/L Foliar Spray: 4.0-7.5 ml/L	In periods of susceptibility to fungal biotic stresses. In periods of susceptibility to biotic stress from insects.

Composition
Potassium oxide (K₂O) ...9.5 %
Silicon Oxide (SiO₂) ...22 %

Formulation: Liquid
Packing: 1 L, 5 L, 20 L, 1000 L
Certifications and Registrations:
INFOxGEN

Advices for use

For improve resistance to fungi, insects, mites
USE ALONE and
DO NOT change the pH of the solution

Mixed with other products
ACIDIFY
Water>Silik^{EVO}>Acid>Other Product

Citric Acid
300 g/hl
pH 5.5

Foliar Spray
every 4/10
days

ALWAYS apply mixed with a
WETTING AGENT
The homogeneous distribution amplifies
the effectiveness

 Allowed in Organic Farming

Silik^{EVO} is fertilizer of natural origin that improves and increases the natural resistance of plants against harmful organisms and abiotic damage, encouraging the secondary metabolism of the plant in order to contain attacks by pathogens and parasites.

For informations:
www.agridæus.com



SILICON FERTILIZER
with POTASSIUM
ACTIVATOR of NATURAL
PHYSIOLOGICAL MECHANISMS
and RESISTANCE SYSTEMS

Silik^{EVO}

Applications in Viticulture



High Specific
Plant Nutrition
Fertilizer

Innovative formulation
for maximum effectiveness
and maximum safety

Allowed
in
Organic Farming

 **agridæus**
life for agriculture

Main mechanisms of action of Silik^{EVO}

- * To accelerate the **healing** process, the plant reacts by concentrating the Silicon in correspondence with wounds and micro-wounds, compartmentalizing the potential entry routes for harmful organisms.
- * It settling on the cuticles it creates a **mechanical barrier** to the entry of unwanted guests.
- * To increase the **mechanical resistance** of cell walls and xylem vessels.
- * On the surface of leaves and fruits it forms a layer of Silicon crystals that cause wounds to the exoskeleton of **insects** and **mites** with subsequent dehydration.
- * To increase resistance to **thermal** and **water stress**.
- * To optimize **transpiration**.



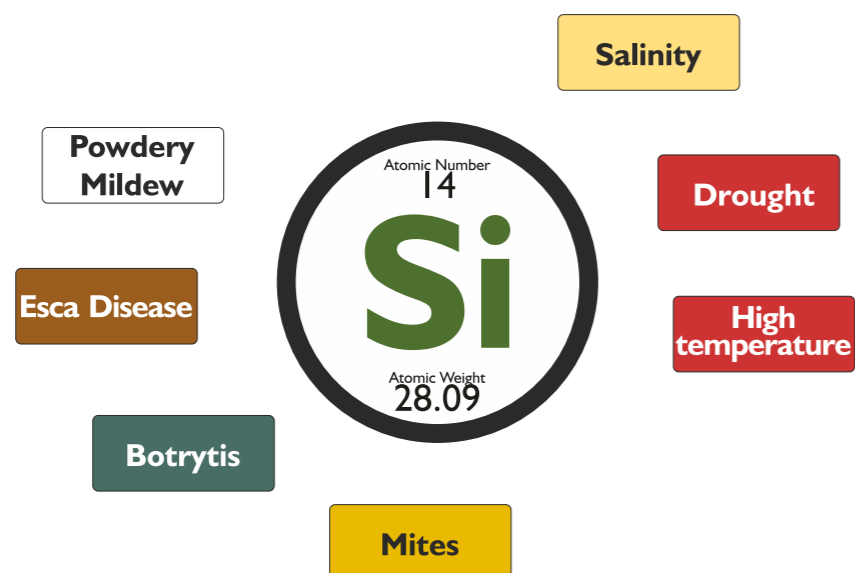
The benefits in viticulture of Silik^{EVO}

- * The healing of wounds and micro-wounds, the increase in the mechanical resistance of cell walls and xylem vessels reduces the risk of developing degenerative wood diseases.
- * To strengthen and to activate the natural defense mechanisms of plants against harmful organisms (fungi, insects, mites), an effective solution that completes modern defense strategies.
- * To reduce the onset of excessive water stress which, combined with thermal stress, would lead to incomplete sugar and phenolic maturation.
- * The increasing in mechanical resistance allows a reduction of the splitting of the berries during the harvest (manual and mechanical) while preserving the organoleptic characteristics for a quality winemaking process.



Silik^{EVO} a single application, many benefits

The application of Silik^{EVO} during the vegetative cycle of the vine and in particular in the summer period guarantees numerous beneficial effects that positively influence the quality of the grapes and the reduction of abiotic stress and damage caused by fungi, insects and mites.



AFTER MECHANICAL PRUNING

Green pruning performed with mechanical equipments causes numerous wounds to the plants, often with irregular cuts that favor the stagnation of moisture and therefore the entry of pathogens (fungi).

Silik^{EVO} promotes tissue healing, the plant, in fact, is able to concentrate the silicon around the wounds creating a compartmentalization that prevents the penetration of pathogens.

Silik^{EVO} it can also be used in a mixture with cupric products to optimize the tissue sanitization strategy, but in case of unfavorable environmental situations (drought, high temperatures), frequent in the periods of execution of green pruning, the advantage of using **Silik^{EVO}** lies in its ability to act at the metabolic level by increasing the resistance to water and thermal stress, while the cupric products would increase the level of stress with negative repercussions on the quality and quantity of production.

Doses of use: 2.5-4.0 ml/L (min. 2.5 L/ha), immediately after green pruning.

ESCA DISEASE

The spread of fungal inocula that cause Esca Disease is closely related to mechanical green pruning. In the available equipment it is in fact impossible to guarantee the continuous disinfection of the blades and consequently the risk of spreading the disease to the neighboring plants to the sick ones becomes high, a risk accentuated by the passage of infected residues directly on the cut wounds.

In addition to the wound healing effects described above, **Silik^{EVO}** after its application it is able to absorb the water present on the wounds, creating an unfavorable environment for the development of fungal spores and mycelia.

Doses of use: 2.5-4.0 ml/L (min. 2.5 L/ha), immediately after green pruning.



POWDERY MILDEW

Uncinula necator attacks all non-lignified parts of the plant, causing discoloration, browning and necrosis of the tissues.

Silik^{EVO} acts through **three mechanisms of action:**

- 1) the deposition of Silicon in the cuticles of leaves and shoots increases the mechanical resistance of the plant tissues with consequent reduction of the possibility of penetration of the hyphae of the fungi;
- 2) the Silica gel that deposits on the leaf plate, shoots and berries creates a differential of osmotic potential that causes dehydration of the fungal mycelium;
- 3) with crystallization, the silica gel traps part of the spores of the fungus, reducing the potential for inoculation.

Doses of use: 3.0-5.0 ml/L (min. 3.0 L/ha).



MITES

The mites cause a chromatic alteration of the leaf blades with necrosis and desiccation, the deformation of shoots and buds that affect the correct development even the following year.

Silik^{EVO} acts through **four mechanisms of action:**

- 1) the deposition of Silicon in the cuticles of leaves and branches increases the mechanical resistance of the tissues with consequent reduction of the damage caused by mite bites;
- 2) the formation of Silicon crystals on particularly sharp plant tissues causes wounds to the exoskeleton of the mites with loss of hemolymph which leads to death;
- 3) the Silica gel that is deposited on the body of the mites creates a differential of osmotic potential that causes dehydration of the phytophagous;
- 4) with crystallization, the Silica gel traps the mites, immobilizing them and causing asphyxiation.

Doses of use: 4.0-7.5 ml/L (min. 4.5 L/ha).



HEAT STRESS and DROUGHT STRESS

The Silicon contained in **Silik^{EVO}** protects cell membranes from damage caused by high temperatures; in addition to mechanical protection, silicon acts by reducing the activity of free radicals responsible for damage to the membranes and the consequent appearance of leaf drying.

The application of **Silik^{EVO}** increases the efficiency of water use by plants through: reducing losses from cell walls, regulating transpiration and flow rate in xylem vessels.

The greater **availability of water** inside the leaf tissues combined with the **protection of chlorophyll** from degradation guarantees the maintenance of optimal **photosynthetic activity**.

Doses of use: 2.5-4.0 ml/L (min. 2.5 L/ha), every 7 days when adverse climatic situations appear.

