



Lithovit®

The Lithovit® effect: sustainable CO₂ supply via the leaves of your plants

The biostimulant / foliar fertilizers of Lithovit® are based on natural limestone from a controlled source. They contain high levels of calcium carbonate (CaCO₃) and magnesium oxide (MgO), silicon dioxide (SiO₂) micronutrients such as iron and manganese.

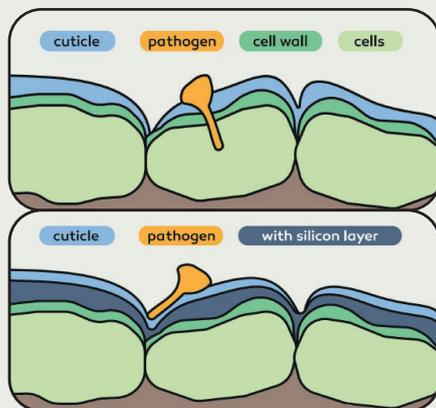
How does Lithovit® work?

Finely ground, Lithovit® is highly active. Sprayed as a suspension onto the leaf, a thin mineral layer is deposited there - the basis for the Lithovit® effect.

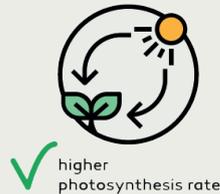
The fine, carbonate-containing depot layer ensures a long-term CO₂ supply to the plant.

At night - when moist - CO₂ is bound from the air. During the day, however, this CO₂ is released back into the environment when it dries off. The CO₂ concentration on the leaf surface increases and can easily diffuse into the leaf interior via the stomata. More CO₂ is continuously available to the plant.

This equilibrium reaction (calcium hydrogen carbonate reaction) continues as long as the depot layer exists.



Comparison of a plant cell wall with and without an embedded silicon layer using the example of a rice leaf.
Source: Wang et. al., 2017: Role of Silicon on Plant-Pathogen Interactions



✓ higher photosynthesis rate

The photosynthesis rate is increased - the plants respond with increased growth, better plant development and increased stress resilience or water use efficiency.



✓ silicon layer forms mechanical protection against insect damage

The considerable proportion of silicon dioxide (SiO₂) increases stability and durability. It also promotes numerous important metabolic processes. Result: increased resilience to abiotic stress factors.

The increased incorporation under the cuticle of the leaf causes: mechanical protection against insect feeding, protection against the penetration of pathogens such as fungal spores, direct influence on the metabolism of the plants.

Lithovit® - for a sustainable agriculture

As a natural product, all raw materials come from Germany. Development and production take place at the plant in Northeim, which is operated entirely with energy from hydropower.

Even when used in agriculture, additional use of machinery is only necessary in a few cases, as Lithovit® has good miscibility with common crop protection measures.

The ecological footprint and the impact on the fertilizer balance are minimal through the use of Lithovit®.

The mode of action applies to the entire portfolio. With Lithovit® Standard as the basis, the other products are each supplemented with specific nutrients.

For your plants:

- Better utilization of available nutrients
- Improved stress resilience, resulting in a healthier plant

For you:

- Flexible applicability and mixability
- Economic / ecological added value



transforming agriculture

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