



about *ekolive*

ekolive is the first and leading provider of a new ecological bioleaching method for the removal or extraction of metals from minerals (**bioleaching**), in situ cleaning of contaminated sites and ex situ cleaning of contaminated soils and minerals (**bioremediation**), as well for the production of ecological soil additives and plant strengtheners (**biostimulants**), also to increase the effectiveness of phytosanitation.

Our technology is certified by the European Commission.



How to apply

microfertile™ plant is applied on plants by spraying or irrigation.

For watering of plants we recommend at least five applications.

To do this, dilute the product with water to approx. 5–10 % (i.e. 5 to 10 litres of *microfertile™ plant* in 100 litres of water).

As a general rule to increase potency/fertility, apply *microfertile™ plant* multiple times (ideally with each watering), but not necessarily increase the concentration.

With constant use for irrigation, especially in greenhouses and hydroponic systems, the concentration can also be significantly reduced (0.75–1%).

Best for grass, herbs, salads, tomatoes, hemp and any leafy green vegetable... in greenhouses and hydroponic farms – biggest particles are cells of green micro-algae – up to 10 micrometers.

Storage: Store *microfertile™ plant* in the original closed containers in a dark place and at a temperature between 10 and 25°C if possible. Protect it from frost, fire and direct sunlight.

Shelf life: When stored in the undamaged original packaging and if the storage conditions are observed, 12 months from the date of manufacture.

Pack sizes: 1, 2, 5, 10, 25, 50, 1.000 litre containers.

ekolive is ecological, innovative, value-adding; the breadth and contribution of our innovative technology to achieving global sustainability goals is extraordinary.



Producer

ekolive
 Bioleaching | Bioremediation | Biostimulants

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Benefits

microfertile™ plant is a natural biostimulant (plant strengthener) for the biological strengthening of ornamental and crop plants. It

- ✓ ensures increased root growth;
- ✓ increases root mass and fine roots;
- ✓ improves nutrient and phosphate absorption;
- ✓ stimulates plant growth;
- ✓ revitalises the microbial life in the soil;
- ✓ increases humus production;
- ✓ improves the water storage capacity of the soil;
- ✓ shortens the growing season;
- ✓ increases yield as well as plant and crop quality;
- ✓ increases health, resistance and growth of plants;
- ✓ increases efficiency and reduce the need for fertilizers;
- ✓ acts against abiotic stress;
- ✓ increases seed germination and radicle development;
- ✓ potentially increases cold resistance by several degree.

The targeted use of effective biostimulants can compensate for the usual drop in yield during a transformation from conventional to organic farming.

A biological tool

ekolive uses naturally occurring microorganisms as a biological tool. Our biostimulants for soil and plants produced in this way offer a unique combination of microorganisms, organic acids and dissolved micronutrients. They ensure increased root growth, thus more fine roots, and thus again better phosphate absorption. Amino acids – in combination with trace elements – stimulate plant growth. Fulvic acids, short-chain, water-soluble humic acids, improve the absorption of nutrients and thus lead to corresponding advantages in plant growth.

“Biostimulants for soil and plants from ekolive support ecological transformation.”

Microbial soil and plant stimulants

Our *microfertile™* biostimulant is produced by bioleaching of coal – (pH approx. 8) with natural bacteria such as *Thiobacillus*. These are plant growth-promoting microorganisms that activate soil life – which in turn accelerates the conversion of organic matter for increased humus production, shortens the growing season, improves soil conditions for more root mass, increases yield through improved nutrient availability, improves nutrient and soil conditions for better crop quality – and helps plants to resist up to 7°C lower temperatures.

Microorganisms in the root microbiome expand the plant immune system, even increase growth, and thus play an important role in the plant ecosystem.

Today, the need for biostimulants is greater than ever – for various reasons, not to mention the skyrocketing prices for artificial fertilizers. On the one hand, new and restrictive fertilizer regulations are increasing the pressure on farmers. Despite stricter regulations, they still want to harvest high yields and good quality. On the other hand, well-known active ingredients also fail due to resistance.

microfertile™ plant

Our liquid *microfertile™* biostimulant contains living, growth-promoting microorganisms (PGPM), various naturally organic acids produced by the microorganisms (rustic-anin, fulvic, humic, oxalic, acetic, izovaleric, pyruvic and amino-acids), green micro-algae that have absorbed and stored the nutrients dissolved in the lye. as well as 17 essential elements (micronutrients), to be applied to the leaf surfaces of crop plants or to their roots. The PGPM specifically colonize the root area and the inside of the plant and increase the health, resistance and growth of the plants.

The microorganisms contained in *microfertile™ plant* directly influence plant growth. They also buffer the effects of biotic (fungi, bacteria, viruses and insects) and abiotic stress factors (heavy metal levels, periods of drought, lack of nutrients, high salt levels and extreme temperatures). They stimulate plants' own hormones, which act as messengers and thus control and coordinate growth and development – and also the production of antifreeze proteins by which the plants naturally protect themselves from frost and cold by producing their own antifreeze proteins.

The microorganisms produce metabolites that are said to have an antifungal, antibacterial, antiviral or phytotoxic effect. In addition, pathogens are pushed back within the rhizosphere simply because of increased competition from the mere presence of the PGPM.

