

Brochure



BIPLANTOL®

Homoeopathic plant care



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Homoeopathic plant care

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Healthy plants by using our homoeopathy

Plants need care

in order to grow healthy, to bloom brightly, to produce tasty fruit and to remain hard-wearing. Did you know that you can support your plants by using homoeopathy? Farmers, nurseries and many hobby gardeners have applied our products successfully for many years. Our remedies are plant strengthening agents made from natural substances which are applied either by watering or spraying the plant. We rely on homoeopathy for more than 30 years.

Bioplant Naturverfahren GmbH

was founded in 1984 in Constance on Lake Constance and is the leading manufacturer of homoeopathic plant strengthening agents.

Our company is now being run by the 2nd generation, currently employs eight staff and looks back on more than 30 years of experience. Successfulness and an ever-growing customer base underline the quality of our work and research.

The natural medicine of homoeopathy transferred to plants

Prompted by the debate on the forest dieback in the early 80s, Konrad Würthle, an experienced chemist and naturalist, searched for ways to heal diseased trees. For that he deliberately opted for the homoeopathy. A conventional fertiliser cannot achieve a healing success of diseased plants because its nutrients are too highly concentrated. During an illness we humans also prefer rather little to eat and especially wholesome food. Konrad Würthle eventually succeeded to regenerate diseased and damaged trees in a sustained manner by using a homoeopathic remedy. He named this homoeopathic solution BIPLANTOL® which provides all essential elements homoeopathically for regenerating plants. The success has proven him right. Through the years a broad product line of homoeopathic plant strengthening agents for hobby and professional users has been developed.

In 1991, an expert panel awarded the silver medal to BIPLANTOL® at the International Inventors Fair in Geneva.

In 2022, BIPLANTOL® was awarded brand of the century.



Konrad Würthle † 2021
4 Inventor

Rolf Würthle
2. Generation

Homoeopathy of plants

Similia similibus curentur:

„Let like be cured by like“.

The concept of „homoeopathy“ is derived from Greek and can be translated as „similar suffering“. The gentle, natural medicine of homoeopathy was developed for humans by Samuel Hahnemann in the 18th century. Potentised substances administered by the classic homoeopathy evoke in a healthy organism the very symptoms which they cure on an ill patient.

Yet, it was the declared aim of Konrad Würthle to develop a homoeopathic complex agent which enabled diseased plants to regenerate and to strengthen healthy plants. For BIPLANTOL® we employ the principle of the Schüßler cell salts which



was developed by Wilhelm Heinrich Schüßler in the 19th century. This method is based on curing disorders of the mineral balance by administering small doses of minerals.

The components contained in BIPLANTOL® acquire a „potentised“ effect during the dynamisation into several homoeopathic dilutions. This phenomenon promotes the development of the plant's defence mechanisms.

BIPLANTOL® promotes

plant health, the ability to grow and organisational power of the plant

The motto underpinning BIPLANTOL® is not „a lot helps a lot“. But it gives the plant (organism) an impulse that **stabilises the system or regulates disorders**. Innumerable intricate processes take place as plants grow. Influences of various kinds can easily disrupt the orderly course of these processes. With our homoeopathic products we have found ways and means to focus on promoting the biological, **organisational processes**, to create a balance or to **stabilise an existing balance**.

Thus BIPLANTOL® makes an active contribution to regenerate diseased and weakened plants and to keep healthy plants healthy.

Over the years or during a vegetation period an imbalance can be caused by external stress factors (e.g. unfavourable soil conditions, climate stress, fertilisation errors, chemical influences, etc.). The result of this is a reduced ability of the plant for resistance and regeneration. This instability may not always be visible instead shows when additional stress factors are added.

BIPLANTOL® supports plants preventively to correct malfunctions or to promote vital functions such as defence responses against a disease.

Source materials and production

Our homoeopathic plant strengthening agents are produced according to the rules of the classic homoeopathy. This means that the source materials are diluted with either water or alcohol and shaken following a certain procedure.

Natural minerals and trace elements are utilised including potassium, calcium, iron, magnesium; phosphor, sulphur and essential trace elements including boron, manganese, molybdenum, cobalt, copper among others; silicon, uronic acids (plant mucilage), germanium, worm humus, herbal and plant extracts.

The basis

for the resulting BIPLANTOL® product line is a **combination of plant extracts, minerals and trace elements in a homoeopathic-dynamised form (D6-D100)**. BIPLANTOL® is a biochemical-physical complex; it is neither a pesticide nor a fertiliser in the classical sense but a subtle functional agent for the **control of biological life and exchange processes**.

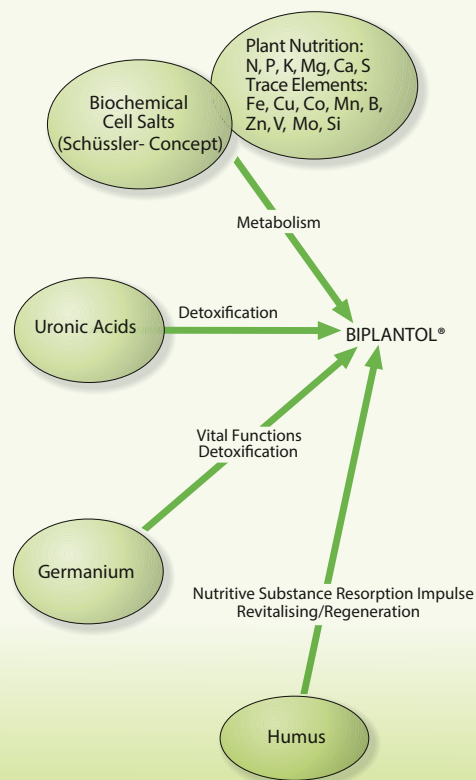
The balanced composition of BIPLANTOL® has a regulating effect on the plants metabolism and supports the natural processes of life in the soil.

The principle

The complex agent BIPLANTOL® gives stabilising impulses to the plant:

- for a balanced nutrition (nutrient-complex)
- to compensate stress and to detoxify cells (uronic acids, germanium-complex)
- to promote the symbiosis between plants, microorganisms and mycorrhizal fungi (humus-complex)

BIPLANTOL® strengthens the health and vitality of the plant.



Healthy soil, healthy plant

Soil microorganisms are an important component of soil life and plant health (interaction, communication between plants and mycorrhizae). The promotion of microorganisms in the rhizosphere (the area around plant roots) can contribute substantially to keeping plants healthy.

In the soil, BIPLANTOL® affects the health of the plant indirectly by supporting soil organisms.

Enjoy gardening more



BIPLANTOL®

- supports plant health and vitality
- strengthens weakened plants
- helps to reinforce the plants ability to cope with stress situations and fungal diseases
- stimulates the plant's natural ability for regeneration
- stimulates vegetative growth
- promotes a healthy symbiosis between soil organisms and roots
- supports root growth and thus nutrient uptake
- benefits soil fertility and crumbly structure (clay-humus-complex)
- benefits natural living structures created by soil organisms
- stimulates mycorrhizal fungi and micro-organism

- increases flower formation and the ability to flower
- supports a better quality of fruit, vegetables and other crops

Ecological contribution

- BIPLANTOL® is environmentally friendly and produced resource-saving
- no risks for the user and the ecosystem
- no risk of developing plant resistance
- serves biodiversity
- facilitates to reduce the use of pesticides and fertilisers
- is bee-friendly

General instructions for use

BIPLANTOL® is **easily applied** either by watering or spraying the plant and **can be used together with our fertilisers**.

Many thanks

to all our loyal and long-time customers.

The great feedback that we receive from you time and again in particular with regards to little success stories make us happy and confirm the quality of our product series BIPLANTOL®.

I would be delighted if you shared the enthusiasm for our homoeopathy for plants with us.

Responsible for nature and people.

Rolf Würthle
CEO

BIPLANTOL® Rescue drops

The homoeopathic plant strengthening agent for plants in emergency situations

Very popular



The „first aid“ for regeneration and strengthening of garden, indoor plants and herbs when experiencing defoliation, site condition problems, frost and drought damages

- stimulates the plant's natural ability for regeneration
- helps with poor site conditions
- promotes plant vitality
- strengthens weakened plants and stimulates growth
- promotes root growth

Vigorous and healthy plants are more hard-wearing and thus less susceptible to disease, climate and site condition stress. Plants stressed by upkeep errors, disease or harmful environmental influences can recover easier by receiving multiple applications. The plant's natural ability for regeneration are stimulated. BIPLANTOL® is absorbed through the leaves, needles and roots and supports the plants from within.

Composition

Homoeopathic-dynamised complex agent containing in potentised form (D12-D100) the minerals potassium, calcium, iron, magnesium; phosphor, sulphur; trace elements such as boron, manganese, molybdenum, cobalt, copper; silicon, germanium and uronic acids (plant mucilage) among others.

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

Instructions for use

Watering: Mix 1 ml in 1 liter of irrigation water and water plant evenly.

Spraying: 10 ml per 1 liter of spray water. Spray plants until dripping wet.

Application period

In acute situations apply every 1-2 weeks until recovery.

More tips for optimisation

After the plant's recovery, we recommend that you use our other BIPLANTOL® plant strengthening agents and BIPLANTOL® fertilisers as a nutrient source.

Storage frost-free and below 40° C.

Productivity 100 ml of Rescue drops suffice for up to 100 liters of irrigation water.

Available units 100 ml.

Frequently Asked Questions

Is pouring or spraying more effective?

Basically, the application by pouring is easier and more effective. We recommend spraying during longer wet periods.

Do I need to fertilise as well ?

Our homoeopathic BIPLANTOL® Rescue drops have no fertilising effect. We therefore recommend that you also supply your plants with a BIPLANTOL® fertiliser after regeneration. For this we recommend BIPLANTOL® Guano, Verde, Rose Power, Citrus Power and Herbal Power.

Can I apply BIPLANTOL® Rescue drops together with fertiliser ?

Yes this is not a problem. You can mix both together in the watering can and apply. Please pay attention to the quantities.



BIPLANTOL® Vital NT

The universal homoeopathic plant strengthening agent



For general health maintenance, regeneration and upkeep of trees, bushes, ornamental plants, cacti and bonsai

- supports plant health and vitality
- strengthens weakened plants
- stimulates the plant's natural ability for regeneration
- promotes root growth and thus nutrient uptake
- increases flower formation and the ability to flower
- suitable for the upkeep of diseased and healthy plants
- revives the sap flow

In principle, vigorous plants are more hard-wearing and thus less susceptible to disease and stress. Plants stressed by disease, harmful environmental influences or by other circumstances can recover easier by receiving multiple applications. The plant's natural ability for regeneration are stimulated. BIPLANTOL® is absorbed through the leaves, needles and roots. Using BIPLANTOL® as a preventive measure supports the plants from within. Plants receiving homoeopathic treatment are more robust and grow better.

Composition

Homeopathic-dynamised complex agent containing in potentised form (D6-D100) the minerals potassium, calcium, iron, magnesium; phosphor, sulphur; trace elements such as boron, manganese, molybdenum, cobalt, copper; silicon, germanium and uronic acids (plant mucilage) among others.

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

Application rate	Watering: 2 ml per 1 liter of irrigation water Spraying: 20 ml per 1 liter of spray water evenly spray plants until dripping wet
Indoor plants, cacti and bonsai, citrus plants	all year round, regularly every 2-4 weeks 2 ml (approx. 30 drops) in 1 liter of irrigation water or 20 ml per 1 liter of spray water
Hydroponics	to every irrigation water 2 ml per 1 liter
Berry bushes, shrubs, bedding and balcony plants, pot plants (e.g. angel's trumpets, olive, oleander, palm trees, etc.), bonsai	Water or spray 1x per month from spring to autumn (application rate see above)
Ericaceous plants, rhododendrons, azalea	Acid loving plants, apply every 6 weeks (application rate see above)
Deciduous, conifer, fruit and ornamental trees	3-4 x per year from spring to autumn, 2 ml per 1 liter of irrigation water or according to calculation formula (see below)

Calculating the application quantity for trees taller than 5 m (estimated dimensions):

Application quantity [ml] = crown width [m] x crown height [m] x 6

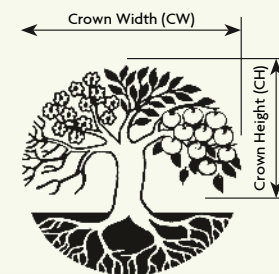
Example: 5 m x 4 m x 6 = 120 ml of BIPLANTOL® Vital NT

Amount of irrigation water [liter] = crown width [m] x crown height [m] x 3

Example: 5 m x 4 m x 3 = 60 liters of irrigation water

Thoroughly mix BIPLANTOL® with the respective amount of irrigation water and water soil uniformly within the entire tree pit area up to the branch endings of the tree crown.

If a tree irrigation system is in place, add the calculated amount for BIPLANTOL® to the usual amount of irrigation water and mix thoroughly.



More tips for optimisation

BIPLANTOL® Guano or Verde

as a nutrient source.

Storage frost-free and below 40°C.

Productivity 1 liter of Vital NT suffices for up to 500 liters of irrigation water.

Available units 250 ml, 1 liter, 5 liters, 10 liters.

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

BIPLANTOL® Guano

The fertiliser containing Guano for ornamental plants and flowers for home and garden



For flowers and green plants including ornamental bushes, balcony plants, lawns, cacti, orchids and hydroponics

- works fast and long-term
- for a lush, colourful bloom
- for healthy and vigorous growth

This organic-mineral liquid fertiliser containing a homoeopathic complex is a „green miracle“. By using BIPLANTOL® Guano plants become exceptionally beautiful. Suffering and sensitive plants will also bring you unforeseen immeasurable joy. The fertiliser combination including Guano and a homoeopathic functional complex facilitates the nutrient uptake and utilisation of the plant. BIPLANTOL® Guano is absorbed by the plants through the leaves and roots.

Composition

Organic-mineral NPK-fertiliser in liquid form 7-4.7-6.5 + 0.13 Fe

7% N total nitrogen, 4.7% P₂O₅ total phosphate, 6.5% K₂O water-soluble potassium oxide, 40% **homoeopathic plant additive** made from natural minerals and plant extracts, 5% **seabird Guano**, 1% **algae extract**. 0.13% total Fe (iron)

Contains also 0.013% B (boron), 0.007% Mn (manganese), 0.007% Cu (copper), 0.007% Zn (zinc), 0.001% Mo (molybdenum).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions.

Instructions for use

Watering: Mix 3 ml in 1 liter of irrigation water and water plant evenly.

Apply only half dosage for hydroponics and sensitive plants such as orchids.

Application period

Every 14 days from spring to autumn during the flowering and growth period. Apply every 3 weeks during the dormancy period.

More tips for optimisation

BIPLANTOL® Vital NT for universal plant strengthening.

Storage frost-free and below 40°C.

Productivity 1 liter of Guano suffices for up to 330 liter of irrigation water.

Available units 1 liter, 5 liters, 10 liters.



BIPLANTOL® Rose NT

The homoeopathic plant strengthening agent for roses



Especially developed for general health maintenance, regeneration and strengthening of roses against fungal diseases

- supports plant health and vitality
- strengthens roses against fungal diseases
- stimulates the plant's natural ability for regeneration
- supports root growth and promotes the symbiosis between the plant and soil organisms
- increases the ability to flower
- promotes lush growth

Healthy and vigorous roses are more hard-wearing and thus less susceptible to disease and stress. Using BIPLANTOL® as a preventive measure supports roses from within. Roses receiving homoeopathic treatment are more robust, grow better and bloom abundantly. Plants stressed by disease and harmful environmental influences can recover easier by receiving multiple applications. BIPLANTOL® is absorbed through the leaves and roots.

Composition

Homoeopathic-dynamised complex agent containing in potentised form (D6-D100) the minerals potassium, calcium, iron, magnesium; phosphor, sulphur; trace elements such as boron, manganese, molybdenum, cobalt, copper; silicon, germanium; uronic acids (plant mucilage) and extracts from wild roses among others.

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

Instructions to use

Watering: Mix 2 ml in 1 liter of irrigation water and water plants evenly.

Spraying: 20 ml per 1 liter of spray water. Spray plants until dripping wet.

Application period

Water or spray roses **regularly every 14 days** from spring (beginning of budding) to autumn. If the soil is continuously saturated with water before use, application should follow by spraying.

More tips for optimisation

BIPLANTOL® Soil Active to improve the soil and support the biological activity.

BIPLANTOL® Rose Power as a nutrient source.

Storage frost-free and below 40°C.

Productivity 1 liter of Rose NT suffices for up to 500 liters of irrigation water.

Available units 250 ml, 1 liters, 5 liters, 10 liters.

Tips for preventing black spot disease on roses

Black spot (*Diplocarpon rosae*) is one of the most significant fungal diseases of roses. The fungal spores can survive on diseased and fallen leaves and spread further through splashing water in particular. In the following year the spores spread to young rose leaves by rain and irrigation water or animals (e.g. ants). The infestation begins mostly on lower leaves and spreads to upper leaf layers eventually. Favourable infection conditions involve prolonged wet periods

at cooler temperatures often occurring as early as May. Unfortunately, many rose varieties are sensitive to black spot disease. Thus it is recommended to strengthen roses preventively. Regular uses of **BIPLANTOL® Rose NT** as a preventive measure **promote both health and vitality** of your roses.

The long-lasting spores of black spot can survive for a long period in the soil. It is also recommended to use **BIPLANTOL® Soil Active** for further optimising and support of the biological soil activity. The soil activator supports soil microorganisms and thus indirectly accelerates the decomposition of fungal spores in the soil. Furthermore, the stimulation of soil life provides a balanced nutrition for roses. But already infected or seceded foliage should be removed as soon as possible to reduce the infection pressure especially during the summer. Please note that you should under no circumstances dispose off infected leaves on your compost but the bin instead.

For beautiful, magnificent roses it is best to begin to strengthen your plants as early as spring. Remember your soil too. A healthy, stimulated soil has also a substantial influence on the health of the rose. Furthermore, ensure that your roses are placed in a site that is well-adapted for roses, preferably light and sunny.

For a balanced nutrition of your roses we recommend to use also our complete fertiliser **BIPLANTOL® Rose Power**.



BIPLANTOL® Rose Power

Fertiliser for roses containing micronutrients



Proven fertiliser for roses containing essential micronutrients and a homoeopathic plant additive

- for a lush, colourful bloom
- for healthy growth
- works fast and long-term
- abundant in trace elements

BIPLANTOL® Rose Power is a mineral fertiliser especially adjusted to the needs of roses. The combination with a homoeopathic functional complex facilitates the nutrient uptake and utilisation of the plant. Also the high proportion of plant available magnesium and iron prevents nutritional deficiencies and leaf yellowing. Watering the leaves once over the leaves and soil transports the nutrients directly where needed. This rose fertiliser is immediately effective and contains all essential macro- and micronutrients for optimal and healthy plant growth and for lush blooming.

Composition

NPK-fertiliser in liquid form 2.7-1.8-2.7+0.5 Mg and micronutrients

2.7% N total nitrogen, 1.8% P₂O₅ total phosphate, 2.7% K₂O water-soluble potassium oxide, 0.5% MgO magnesium oxide, 80% **homoeopathic plant additive** made from natural minerals and plant extracts; micronutrients 0.02% B (boron), 0.03% Cu (copper), 0.07% Fe (iron), 0.05% Mn (manganese). **Contains also** 0.009% Zn (zinc), 0.001% Mo (molybdenum).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions.

Instructions to use

Watering: Mix 3 ml in 1 liter of irrigation water and water plants evenly.

Application period

Every 14 days during the flowering and growth period from budding until the end of August.

More tips for optimisation

BIPLANTOL® Roses NT for care, health maintenance and strengthening of roses against fungal diseases, ideal in combination with **BIPLANTOL® Soil Active** to improve the soil and support the biological activity.

Storage frost-free and below 40° C.

Productivity 1 liter of Rose Power suffices for up to 330 liters of irrigation water.

Available units 1 liter, 5 liters, 10 liters.

When should roses be fertilised ?

As soon as the rose begins to sprout in spring, BIPLANTOL® Rose Power can be applied. From august we recommend Neudorff HerbstKali. Potassium regulates the water balance of the plant, stabilises cell structures and strengthens the tissue. A good nutrient supply with potassium is very important for winter hardiness. Roses are better able to withstand severe frosts and drought. They are more resistant to pests and diseases.

Tip

Match with

BIPLANTOL® Rose NT
& BIPLANTOL® Soil Active



BIPLANTOL® Soil Active

For optimal soil & compost



The homoeopathic soil amendment for soil amelioration and fast converter for compost

- for a soil stimulating effect
- promotes the biological activity of the soil by stimulating soil microorganisms
- supports a better decomposition of fungal spores in the soil
- faster composting
- significant odour reduction
- for a nutrient rich and vital humus
- cost savings of fertilisers
- promotes the symbiosis between plant and mycorrhizal fungi (humus-complex)

BIPLANTOL® Soil Active supports the biological activity of the soil and compost heap by stimulating aerobic and anaerobic soil bacteria and beneficial fungi. This drives both a faster and more odourless composting and provides a more fertile soil. In this way soil fatigue as is common with roses may be counteracted. Compost is abundant in stable humus matter and one of the most important suppliers of humus in the garden. It provides nitrogen and is rich in phosphate, potassium and calcium.

Composition

Soil amendment using plant and natural mineral components: 100% homoeopathic-dynamised complex agent (D6-D100) containing the minerals potassium, calcium, iron, magnesium; phosphor, sulphur and vital trace elements such as boron, manganese, molybdenum, cobalt, copper; silicon, germanium and uronic acids (plant mucilage) among others.

No side effects for humans, beneficial organisms and ecosystem when appropriately applied according to manufacturers instructions.

Instructions to use

As a **soil activator**: **2 ml per 1 liter** of irrigation water, water **regularly every 2-4 weeks** (approx. 1 liter per 1 m²). Spray larger areas 1x a month until dripping wet by using 20 ml per 1 liter of spray water (the soil should be moist before use).

For **roses**: Mix regularly every **two weeks 20 ml BIPLANTOL® Soil Active in 10 liters of irrigation water** for improved decomposition of fungal spores in the soil.

As a **composting aid**: **3 ml per 1 liter** of irrigation water. Moisten fresh green waste **1x per week** and aerate compost lightly.

Application period

All year round from 5°C soil temperature.

More tips for optimisation of roses

BIPLANTOL® Rose NT for care, health maintenance and preventive strengthening of roses against fungal diseases and **BIPLANTOL® Rose Power** as a nutrient source.

BIPLANTOL® Rose NT und Soil Active can be applied together at the same time.

Storage frost-free and below 40°C.

Productivity 1 liter of Soil Active suffices for up to 500 liters of irrigation water or 500 m², respectively.

Available units 250 ml, 1 liter, 5 liters, 10 liters.

Frequently asked Questions

Can I apply Biplantol Soil Active together with Biplantol Rose NT?

Basically, the application by pouring is easier and more effective. We recommend spraying during longer wet periods.

Aquamix for larger areas

Dragging cans was yesterday. We recommend the Aquamix for easy dosing and application of BIPLANTOL® Soil Active on larger areas. Thanks to the integrated dosing system, BIPLANTOL® is automatically and precisely added to the irrigation water (2 ml per liter of irrigation water).

BIPLANTOL® Vegetable

The homoeopathic plant strengthening agent for vegetables



For general health maintenance and preventive strengthening of vegetables and herbs against fungal diseases.

For lettuce, cucumbers, tomatos, potatos, culinary herbs, ...

- supports plant health and vitality
- stimulates the plant's natural ability for regeneration
- promotes root growth and thus nutrient supply
- supports fruit setting
- ideal for seedling cultivation

Healthy and vigorous vegetable plants are more hard-wearing and thus less susceptible to disease and stress. Using BIPLANTOL® as a preventive measure supports the plants from within. Vegetables receiving homoeopathic treatment are more vigorous, robust and bring a more successful harvest. BIPLANTOL® is absorbed through the leaves and roots.

Composition

Homoeopathic-dynamised complex agent containing in a potentised form (D6-D100) extracts from herbs such as sage, basil, malva; silica and gemstones among others.

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

Instructions to use

Watering: Mix 2 ml in 1 liter of irrigation water and water plants evenly.

Spraying: 20 ml per 1 liter of spray water. Spray plants until dripping wet.

Application period

Water or spray **regularly every 14 days** during the vegetation period from spring to autumn.

If the soil is continuously saturated with water before use, application should follow by spraying.

More tips for optimisation

BIPLANTOL® Verde as a nutrient source.

BIPLANTOL® Soil Active to improve the soil and support the biological activity.

Storage frost-free and below 40°C.

Productivity 1 liter of Vegetable suffices for up to 500 liters of irrigation water.

Available units 250 ml, 1 liter, 5 liters, 10 liters.

Frequently asked Questions

Is pouring or spraying more effective?

Basically, the application by pouring is easier and more effective. We recommend spraying during longer wet periods.

Do I need to fertilise as well ?

Our homoeopathic plant strengthener BIPLANTOL® Vegetable has no fertilising effect. We therefore recommend that you also supply your plants with a BIPLANTOL® fertiliser. For this we recommend BIPLANTOL® Guano, Verde, Rose Power, Citrus Power and Herbal Power.



BIPLANTOL® Verde

The „wholefood“ for fruit, vegetables and herbs



The organic plant nutrition for fruit, vegetable and herbal plants

- supports good fruit development and flavor
- works long-term
- contains natural iron
- free from animal products

This organic fertiliser containing a homoeopathic complex is like „wholefood for plants“ produced according to the formula of fertile, primeval forest soil. BIPLANTOL® Verde consists of renewable raw materials of plant origin, organic soil additives and natural iron from fir tree bark.

The balanced combination of fertilising components and the homoeopathic functional complex facilitates the nutrient uptake and utilisation by the plant. Important processes in the soil are stimulated. A balanced nutrition of the soil life leads to sustainable soil fertility and healthy plant growth.

BIPLANTOL® Verde is absorbed by the plants through the leaves and roots.

Composition

Organic NK-fertiliser in liquid form 1.5-3+0.3 Fe

using plant materials; 1.5% N total nitrogen, 3% K₂O water-soluble potassium oxide, 15% **homoeopathic plant additive** made from natural minerals and plant extracts, 0.3% Fe **iron from fir tree bark**.

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions.

Instructions to use

Watering: Mix 5 ml in 1 liter of irrigation water and water plants evenly.

Water young plants following 14 days after germination using 2 ml per 1 liter of irrigation water.

Not suitable for hydroponics.

Use prepared solution within 24 hours to prevent a fermentation process.

Application period

Every 14 days during the flowering and growth period from spring to autumn. Apply every 3 weeks during the dormancy period.

More tips for optimisation

BIPLANTOL® Vital NT for fruit, **BIPLANTOL® Vegetable** to strengthen herbal and vegetable plants.

Storage frost-free and below 40°C.

Productivity 1 liter of Verde suffices for up to 200 liters of irrigation water.

Available units 1 liter, 5 liters.



BIPLANTOL® Herbal-Power

The natural fertiliser for especially tasty
spice and herbaceous plants

The organic plant food for spice
and herbaceous plants

- for especially tasty herbs
- quick nutrient availability
- promotes strong and healthy growth
- free from animal products

This organic fertiliser containing a homeopathic complex fertilises, cares and vitalises herbaceous plants in pots, garden, raised beds and balcony boxes. The fertiliser ingredients are optimally tailored for particularly tasty herbs. The nutrients are purely plant derived and ensure strong and healthy growth. The including homeopathic complex facilitates a better nutrient uptake and increase of the vitality. BIPLANTOL® Herb-Power is absorbed by the plants through the leaves and roots.



Composition

Organic NPK-fertiliser liquid 3-2-5

using plant materials; 3 % N total nitrogen, 2 % P₂O₅ total phosphate, 5 % K₂O total potassium oxide, 5 % **homeopathic plant additive** made from natural minerals and plant extracts.

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions.

Instructions to use

Watering: Mix 5 ml in 1 liter of irrigation water and water plants evenly. Water young plants following 14 days after germination using 2 ml per 1 liter of irrigation water.

Shake well before use !

Not suitable for hydroponics.

Fill watering can half with irrigation water. Measure required fertiliser amount and add. Add remaining amount of irrigation water. Use prepared solution within 24 hours to prevent a fermentation process.

Application period

Every 14 days during the growth period from spring to autumn. Apply every 4 weeks during dormancy.

More tips for optimisation

BIPLANTOL® Vegetable to strengthen herbal and vegetable plants.

Storage frost-free and below 40°C.

Productivity 250 ml of Herb-Power suffices for up to 50 liters of fertilisation solution.

Available units 250 ml.

Additional information

Fertilise warm-standing plants in winter only every 4 weeks, do not fertilise cold-standing plants. The viscosity as well as the special odor of the fertiliser are a sign of excellent quality and are based on the high amount of plant derived fertilising matter.

If your herbs are visibly weakened, you can additionally strengthen your herbaceous plants every two weeks with BIPLANTOL® Vegetable.



BIPLANTOL® Citrus-Power

The organic Citrus-Fertiliser with extra iron

The organic plant food for citrus plants

- for strong growth and dark green leaves
- supports a good fruit development
- for tasty fruits and a rich harvest
- free from animal products
- with iron and manganese

BIPLANTOL® Citrus-Power organic fertiliser is especially for citrus plants and lays the foundation for a healthy and strong growth. The growth and flower formation are supported by the special formula. The high amount of plant available iron addition prevents the frequently appearing yellow colouring of the leaves because of iron deficiency (iron chlorosis). In combination with our homoeopathic complex the plant can take up the nutrients better and utilise them.

BIPLANTOL® Citrus-Power is absorbed by the plants through the leaves and roots.



Composition

Organic NK-fertiliser liquid 3-4+2 Fe+0,1 Mn

using plant materials; 3 % N total nitrogen, 4 % K₂O total potassium oxide, 2 % Fe iron, 0,1 % Mn manganese, 5 % **homoeopathic plant additive** made from natural minerals and plant extracts.

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions.

Instructions to use

Watering: Mix 5 ml in 1 liter of irrigation water and water plants evenly.

Shake well before use !

Fill watering can half with irrigation water. Measure required fertiliser amount and add. Add remaining amount of irrigation water. Use prepared solution within 24 hours to prevent a fermentation process.

Not suitable for hydroponics.

Application period

Every 14 days during the growth period from spring to autumn. Apply every 4 weeks during dormancy.

More tips for optimisation

BIPLANTOL® Vital NT for universal plant strengthening.

Storage frost-free and below 40°C.

Productivity 250 ml Citrus-Power suffices for up to 50 liters of fertilisation solution.

Available units 250 ml.

Yellow leaves, a sign for iron deficiency?

The reason for iron deficiency lies mostly within the soil. Waterlogging, cold roots and an incorrect pH are mostly the cause for nutrient deficiency in citrus plants. Yellow leaves on citrus plants indicate an iron deficiency. Citrus plants often suffer from what is known as iron chlorosis due to an unfavorable pH value in the soil. The leaves turn yellow due to a lack of chlorophyll. Usually not the whole leaf is affected, but only the spaces between the leaves. The leaf veins usually remain green. Citrus plants prefer a slightly acidic soil between pH 5.5 - 6.5.

To prevent iron deficiency, we recommend the Neudorff pH soil test set for easy determination of the pH value.

If your citrus plants are visibly weakened, you can strengthen them with BIPLANTOL® Vital NT every two weeks.



BIPLANTOL® Orchids

The homoeopathic care spray for orchids



Specially for general health maintenance, regeneration and upkeep of orchids

- increases flower formation and the ability to flower
- supports plant health and vitality
- stimulates the plant's natural ability for regeneration
- promotes root growth and thus nutrient supply
- benefits the symbiosis between orchid roots and mycorrhizal fungi
- no lime spots remain on the leaves

Vigorous and healthy orchids are more hard-wearing and thus less susceptible to disease, climate and site condition stress. Using BIPLANTOL® as a preventive measure supports orchids from within. Plants stressed by upkeep errors and disease can recover easier receiving multiple applications. BIPLANTOL® orchids is absorbed through the leaves and roots and **leaves no lime spots**.

Composition

Homoeopathic-dynamised complex agent containing in potentised form (D10-D100) minerals, trace elements, plant and orchid extracts.

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

Instructions to use

BIPLANTOL® Orchids is a read-made spray.

Shake well before using.

Do not apply when exposed to direct sunlight.

Evenly spray the **top and bottom of the leaves and aerial roots**.

Application period

All year round, spray regularly **1x per week**.

More tips for optimisation

Use occasionally BIPLANTOL® Guano as a nutrient source.

Storage frost-free and below 40°C.

Available units 500 ml and 1 liter, 5 liters, 10 liters as refill.



BIPLANTOL® Contra X

The aromatherapy



For general health maintenance, upkeep and regenerative support of plants stressed by insect pests

- supports plant health and vitality
- promotes the regeneration of plants stressed by insect pests
- strengthens plant tissue
- for glossy leaves

The fragrant plant extracts have a positive effect on the plant's metabolism. Vigorous plants are more robust and thus less susceptible to insect pests.

Composition

Plant additive using plant and natural mineral components: 98% homoeopathic-dynamised complex agent containing in potentised form (D6-D100) minerals such as potassium, calcium, iron, magnesium; phosphorus; essential trace elements such as boron, germanium, silicon, copper, manganese, uronic acids (plant mucilage), emulgent and essential oils among others.

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions.

Instructions to use

BIPLANTOL® Contra X is a ready-made spray, no further dilution is needed. Spray the top and bottom of the leaves. **Shake well before using!** Do not apply when exposed to direct sunlight.

Application period

All year round. Regularly **every 4 - 6 weeks**. If required apply more frequent.

Please note

BIPLANTOL® Contra X is highly plant compatible. However, due to the variety of plants it is recommended to test its compatibility on a few leaves first. The spray may drip off and leave stains on floors, windowsills, objects, etc. Therefore, we recommend to cover up the surroundings before application or to wipe the spray before it has dried. Potential bottle indentions are due to the natural ingredients and by no means affect the quality of the product.

More tips for optimisation

BIPLANTOL® Guano or Verde as nutrient source.

Storage frost-free and below 40°C.

Available units 500 ml, 1 liter and 1 liter, 5 liters, 10 liters as refill.



BIPLANTOL® Cactus

The homoeopathic care spray for cacti



Specially for general health maintenance, regeneration and upkeep of cacti and succulent plants

- strengthens leaf cells and tissue
- supports plant health
- maintains vitality and resilience
- increases the ability to flower
- promotes nutrient uptake
- ideal also for seedlings or fresh pricked cacti

Vigorous and healthy cacti & succulent plants are more hard-wearing and thus less susceptible to disease, climate and site condition stress. Homoeopathic treated plants are more robust, grow better and bloom more readily. Plants stressed by care errors and diseases can recover more easily with repeated use.

Using BIPLANTOL® is absorbed by the whole plant and **leaves no lime spots**.

Composition

Homoeopathic-dynamised complex agent containing in potentised form (D10-D100) minerals such as potassium, calcium, iron, magnesium; phosphor; sulfur; trace elements such as boron, copper, manganese, silicon, germanium as well as uronic acids (plant mucilage).

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

Instructions to use

BIPLANTOL® Cactus is a read-made spray.

Shake before using.

Do not apply when exposed to direct sunlight.

Spray the plants evenly from a distance of approx. 30 cm.

Application period

Spray during the species-specific growing season parallel to the watering of the plants.

Tip

Recommended for meadow-, forest- and tropical leaf cacti.

Occasionally use BIPLANTOL® Guano as a nutrient source.

Storage frost-free and below 40°C.

Available units 500 ml and 1 liter as refill.



BIPLANTOL® Buxus

The homoeopathic plant strengthening agent for boxtrees



Especially developed for general health maintenance and preventive strengthening of boxtrees against fungal diseases

- suitable for the upkeep of weakened and healthy boxtrees
- supports plant health and vitality
- stimulates the plant's natural ability for regeneration
- promotes root growth and thus nutrient uptake
- stimulates dense growth and reproliferation

Healthy and vigorous boxtrees are more hard-wearing and thus less susceptible to disease and stress. Using BIPLANTOL® as a preventive measure supports the plants from within.

A boxtree receiving homoeopathic treatment is more vigorous and grows better. Plants stressed by disease and harmful environmental influences can recover easier by receiving multiple applications. BIPLANTOL® is absorbed through the leaves and roots.

Composition

Homoeopathic-dynamised complex agent containing in a potentised form (D6-D100) minerals, trace elements and boxtree extracts.

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

Instructions to use

Watering: Mix 2 ml in 1 liter of irrigation water and water plants evenly.

Spraying: 20 ml per 1 liter of spray water. Spray plants until dripping wet.

Application period

From spring to autumn. Water or spray **weakened plants regularly every 14 days** and **healthy plants 1x a month**.

If the soil is continuously saturated with water before use, application should follow by spraying.

More tips for optimisation

BIPLANTOL® Guano as a nutrient source.

BIPLANTOL® Soil Active to improve the soil and support the biological activity.

Storage frost-free and below 40°C.

Productivity 1 liter of Buxus suffices for up to 500 liters of irrigation water.

Available units 250 ml, 1 liter, 5 liters, 10 liters.



BIPLANTOL® Turf Active

The homoeopathic plant strengthening agent for turfs



For general health maintenance, regeneration and strengthening of turf

- supports turf health and vitality
- provides optimal starting conditions
- promotes root growth and thus nutrient supply
- regenerates stressed turfs
- for a more robust and hard-wearing turf
- supports microbial soil activity
- no risk of turf burnings
- ideal for first sowing and reseedings
- supports fast establishment of first sowing and reseedings

BIPLANTOL® Turf Active supports the natural defences of the turf preventively against fungal diseases, site condition and climate stress. Turf stressed by disease, upkeep errors or other circumstances can recover easier by receiving multiple applications because the natural ability of the plant for regeneration is stimulated.

Composition

Homoeopathic-dynamised complex agent containing in potentised form (D6-D100) the minerals potassium, calcium, iron, magnesium; phosphor, sulphur; essential trace elements such as boron, manganese, molybdenum, cobalt, copper; silicon, germanium and uronic acids (plant mucilage) among others.

Listed as a **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and the ecosystem when appropriately applied according to manufacturers instructions. Bees, beneficial organisms and other insects are not affected.

Instructions to use

Turf activation by watering:

2 ml per 1 liter of irrigation water (approx. 1 liter of irrigation water per 1 m²).

Larger areas **by spraying**:

20 ml per 1 liter of spray water.

Spray until dripping wet, the soil should be moist before use.

Application period

Regularly every 4-6 weeks from spring to autumn from 8°C soil temperature.

More tips for optimisation

BIPLANTOL® Verde as a nutrient source.

BIPLANTOL® Soil Active to improve the soil and support the biological activity.

Storage frost-free and below 40°C.

Productivity 1 liter of Turf Active suffices for up to 500 liters of irrigation water or **500 m²**, respectively.

Available units 1 liter, 5 liters, 10 liters.

What is the best way to apply BIPLANTOL Turf Active?

With the help of the **Aquamix dosing system**, BIPLANTOL® Turf Active can be easily applied with the garden hose. The annoying carrying of the watering can is no longer necessary. The Aquamix 1.25v automatically mixes 2 ml per liter into the irrigation water. It couldn't be easier.

Is BIPLANTOL Lawn Active dangerous for dogs, cats and other pets?

No, BIPLANTOL® Turf Active is absolutely harmless for dogs, cats and other pets. The animals can go back onto the lawn immediately after application.



BIPLANTOL® Tillandsia

The homoeopathic care spray for tillandsia



Especially developed for general health maintenance, regeneration and care of tillandsia and bromeliads

- ideal for misting Tillandsia
- supports plant health and vitality
- stimulates the plant's natural ability for regeneration
- promotes flower formation
- no lime spots

Vital and healthy tillandsia are more hard-wearing and thus less susceptible to diseases, climate and site condition stress. Plants receiving homoeopathic treatment are more robust, grow better and flower abundantly. Plants weakened by upkeep errors and stressed by diseases can recover easier by receiving multiple applications. BIPLANTOL® Tillandsia is absorbed by the whole plant and **leaves no lime spots**.

Composition

Homoeopathic-dynamised complex agent containing in potentised form (D10-D100) the minerals potassium, calcium, iron, magnesium; phosphor, sulphur; trace elements such as boron, manganese, molybdenum, cobalt, copper; silicon, germanium and uronic acids (plant mucilage) among others.

Listed as **plant strengthening agent** with the German Federal Office of Consumer Protection and Food Safety (BVL).

No side effects for humans, beneficial organisms and ecosystem if handled according to regulations and in a proper way. Bees, beneficial organisms and other insects are not affected.

Instructions to use

BIPLANTOL® Tillandsia is a ready-made spray.

Shake well before using.

Do not apply when exposed to direct sunlight.

Spray the plants evenly.

Application period

All year round, spray regularly **2-3 x per week**.

More tips for optimisation

Tillandsia love high humidity.

Storage frost-free and below 40°C.

Available units 500 ml.



BIPLANTOL® Aqua

For a natural balance



For activation, regeneration and stabilisation of aquaria, swimming ponds, biotopes and ponds

- increases the water's natural self-cleaning ability
- reduces early water turbidity and algae formation
- accelerates the decomposition of animal excretions and organic matter

A biological water balance makes for a better quality and favors the vital, natural functions of fish, aquatic animals and plants.

Composition

Homoeopathic-dynamised complex agent containing in potentised form (D6-D100) the minerals potassium, calcium, iron, magnesium; phosphor, sulphur; essential trace elements such as boron, manganese, molybdenum, cobalt, copper; silicon, germanium and uronic acids (plant mucilage) among others.

No side effects for humans, beneficial organisms and the ecosystem when applied appropriately according to manufacturers instructions.

Instructions to use

- 0.5 liter in 10 m³ of **pond water**
(5 ml per 100 liters pond water)
mix thoroughly and
apply every 2 months or when turbidity returns
- 1 ml in 10 liters of **aquarium water**
1 x a month or when water parts are exchanged
- 1 ml in 1 liter of water for **fountains**
- 1 ml in 10 liters of water for **cisterns**
or **rainwater containers**
every 3 months

Please note

The effect in aquaria starts within days, in ponds within weeks. The biological activity is temperature-dependent.

Application period

All year round from approx. 8°C water temperature.

Storage frost-free and below 40°C.

Productivity 1 liter of Aqua suffices for up to 20.000 liters of water.

Available units 250 ml, 1 liter, 5 liters, 10 liters.



Smell-Stop Spray

For the cat toilet



Natural Smell-Stop, neutralises odours naturally without masking these with fragrances

- neutralises unpleasant smells
- versatile
- odourless
- free from scents
- the cat's sense of smell is not impaired

The spray solution is versatile. It neutralises unpleasant odours in the litter box, as well as on the cat tree, in the sleeping basket, on toys, etc.

Instructions to use

Smell-Stop is a **ready-made spray** solution that does not need to be diluted. Moisten the cat litter lightly **1 x daily** from a distance of approx. 40 cm. Spray toys and other objects lightly as required.

... the natural ingredients do the rest...

Storage frost-free and below 40°C.

Available units 500 ml as well as 1 liter, 5 liters as refill..

Composition

Homoeopathic-dynamised complex agent (D10-D100) made from minerals, trace elements and plant extracts.

Safe for animals and humans.

Aquamix Dosing system 1.25V

Watering and fertilising like professionals

BIPLANTOL® can be applied so easily, there is no need to carry the watering can.

1. Pour BIPLANTOL® undiluted into the Aquamix
2. Set the concentration to **0.2%** (add 2 ml per 1 liter of water)
3. Connect garden hose with standard push-in coupling
4. Turn the faucet on all the way and off you go...

- maintenance free, easy to clean
- 4 concentrations selectable 0.2, 0.5, 1.0 und 2.0 %
- high water flow of 14 liters per minute at 4 bar pressure
- pivoting handle for easy spraying

Dragging cans was yesterday



Little science of nutrients, elements and their meaning for plants and soils

Trace elements-micronutrients

Fe Iron is vital for the production of chlorophyll, the oxidation and production of carbohydrates. It is the main catalyst for photosynthesis. A surplus of iron in the soil leads to manganese deficiency. A surplus of lime causes the physiological fixation of iron.

Cu Copper is the most important catalyst in sandy, muddy and peat soil. It forestalls abnormal plant growth resulting from a surplus of nitrogen.

Co Cobalt acts as a regulator between oxidation and reduction processes in cellular respiration.

Mn Manganese promotes beneficial bacterial growth in the soil. Manganese is important for oxidation and reduction processes in cellular tissue. It plays a role in the synthesis of chlorophyll and vitamin C. It is important for plant growth and maturity. It forestalls abnormal plant growth resulting from a surplus of nitrogen.

B Boron Relevant to the resistance of roots from root, fruit and vegetable plants. This element plays an important role in the metabolism of lime. Transports sugar and carbohydrates, particularly in apple trees. It is important for legumes, especially alfalfa.

Zn Zinc is a bio-catalyst for all kinds of plants. The element is concentrated in fungi. Important element for the synthesis of growth regulators. Zinc deficiencies occur after ongoing use of NPK-fertilisation.

V Vanadium is vital for the fixation of nitrogen of rhizobia (bacteria) in legumes.

Si Silicon & Mo Molybdenum are essential elements for epidermal growth (plant cuticula) and for the longitudinal growth of plant stems. Important for vegetative growth and the stability of plants.

Ge Germanium enhances the availability of oxygen and has a vitalising effect on all plant parts.

Uronic acid (plant mucilage) detoxifies plants and microorganisms. Activates the sap flow. Uronic acids belong to the group of polysaccharides and play a central role in BIPLANTOL®. Uronic acids are not important nutrient or energy suppliers like sugar but for the detoxification of plants and microorganisms. These molecules bind metabolic end-products and toxins, detoxify them and contribute to their excretion of the organism.

Plant-

macronutrients

N Nitrogen is a vital component for vegetative growth and synthesis of protein. A surplus of nitrogen leads to an etiolation (excessive growth) whereby plants become weak and less resistant to disease and frost.

P Phosphor is of importance for cell division, development of cell walls, seed protein and root growth. It plays a vital part in the resistance against diseases, elevated vitamin content, digestion of forage crops, assimilation of carbohydrates and fats.

K Potassium is of importance for cell division, the building of sugars, proteins, carbohydrates, oils. It plays an essential part in the process of photosynthesis and cell division and is involved in the synthesis of oils, sugar and starches. It regulates the absorption of calcium, nitrogen and sodium.

Mg Magnesium is the central element in the production of chlorophyll in all green plants. It is necessary for the utilisation of nitrogen, phosphor, sulphur and in the production of proteins. It also compensates acidification.

Ca Calcium regulates the acid-base equilibrium. Important for overcoming symptoms of poisoning in plant tissue. Soil incrustation, stunted plant growth and interference with magnesium effects result from a surplus of calcium.

S Sulphur is an essential nutrient for the production of protein, especially in legumes.

Further advice for storage

To avoid potential quality damage of our products do not store these in the proximity of sources of radiation such as WiFi, mobile phones, cordless telephones, computer, tablets, etc.

We recommend using our preparations within 5 years. With the exception of Biplantol Contra X, use this up within 2 years.

Ensure frost-free storage and avoid temperatures above 40°C.

Is pouring or spraying more effective?

Basically, the application by pouring is easier and more effective. We recommend spraying during longer wet periods.

Do I need to fertilise as well ?

Our homeopathic biplantol plant strengtheners have no fertilising effect. We therefore recommend that you also supply your plants with a Biplantol fertiliser. For this we recommend Biplantol Guano, Verde, Rose Power, Citrus Power and Herbal Power.

You can also add BIPLANTOL® to a fungicide or insecticide treatment.

Helpful terms

Some of the following technical terms are not familiar to everyone and serve for your information.

Leaf fertilisation Fertilisers are applied over the foliage when need to proceed quickly against nutrient deficiency.

Soil fatigue cannot solely be compensated with fertilisation. It is the result of monoculture. If roses, fruit or vegetables are replanted at the same place as before, this may lead to stunted growth (roses) and crop failures (vegetables).

Bulb/Pseudobulb (orchids) nodule-like water and nutrient storing organ on which leaves and flowers mount.

Direct seed Sowing takes place in situ in comparison to propagation by seed and planting out at a later stage.

Over- und outwinter „Overwintering“ is defined as the preparation of plants for the forthcoming vegetative rest (roses, frost-sensitive pot plants, etc.). „Outwintering“ means preparing frost-sensitive balcony and pot plants in its winter quarters for the forthcoming open air season (repotting, renewal pruning, where required removing wilted leaves, treating against lice, fertilisation). But it also involves the dying of winter cereals.

F1-hybrids (seeds) Hybrids are crossings of different selected in-breeding lines. The reproduction from own seeds of F1-hybrids is not sensible because the evolved plants will not have the favored traits any more.

Frost-hardiness is genetically conditioned and depends also on the age of the plant. The older a plant, the more frost-hardy it can become. Because less matured, new plant tissue is less frost-hardy, roses and frost-sensitive plants should not receive fertilisation from the end of August, beginning of September. Before plants will go

into vegetative rest, no more new shoots should develop.

Lammas growth Various deciduous and coniferous trees show the phenomenon of Lammas growth. The Lammas growth is around Midsummer's Day on the 21st of June and causes the trees to shoot a second time in a year. It is ascribed to weather conditions and benefits the regeneration from pest-damaged branches.

June Fruit Drop is the natural reaction of fruit trees to fruit overhang. At first, plants shed all excess fruits which cannot be adequately supplied and exhibit no or not optimal fertilized ovules. With respect to cherry trees this natural process is called „Cherry Fruit Drop“. Low and wet temperatures at the time of blossoming can intensify this fruit loss.

Buds (Eyes) refers to the growth point which is protected by husks (bud scales). During budding lateral shoots, leaves or blossoms derive from it. Some buds can rest as sleeping eyes for years.

pH-value The pH-value says how acidic or alkaline a solution is. It influences the nutrient availability for plants in the soil. Most plants thrive between pH 5.5-6.5. Ericaceous plants like acidic soil conditions between pH 4.5 und 5.5.

Samenfeste crops can be propagated landrace. Own harvested seeds keep their varietal traits.

Heavy and light feeders are plants which require more or less nutrients. Heavy feeders deprive the soil of nitrogen and need respectively need more fertilisation (e.g. tomatoes, oleander). Light feeding plants are herbs and legumes (e.g. beans, peas).

Clay-humus-complex Humic substances (humus) have the ability to connect single soil particles to a resilient crumbly framework and to stabilise the soil structure. Such aggregate structures develop through the connection of calcium with humic substances. The linkage of organic and mineral matter by natural living structures as crumbles is called clay-humus-complex and results only from strong activity of the soil life.

The formed complex stabilises the soil towards erosion and promotes soil fertility. The enlarged soil pore volume improves the aeration and water regime and in turn, creates optimal conditions for microorganisms and plants.

Vegetative growth (asexual) Plant propagation by scions is a vegetative reproduction method which very many plants are suited for. The term scion applies to a young leafy branch of a plant which is propagated by taking roots. There are different kinds of scions. Live stakes (dibbles) refer to woody plant parts, root cuttings refer to the propagation of root parts.

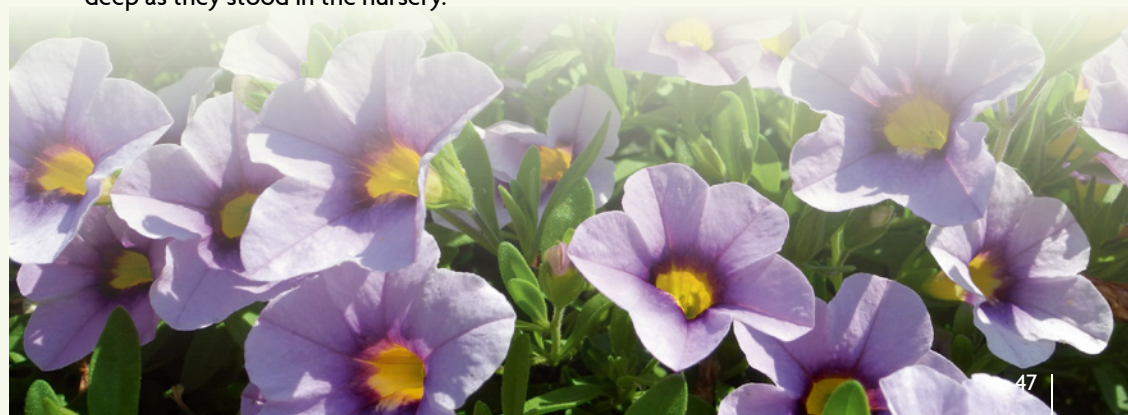
Grafting is employed on fruit trees, roses and vegetables. A grafted plant consists of a base (root with special traits, robust landrace, etc.) and on it a grafted a premium variety.

Bud union is mostly visible as a little swelling. For roses the bud union should lie under the soil surface, for fruit trees above the soil surface. Trees should be planted as deep as they stood in the nursery.

Winter and summer pruning The pruning of fruit and other trees during the resting time. While the winter pruning stimulates plant growth, summer pruning serves the reduction of shoot growth (e.g. vigorously growing fruit trees).

Wild shoots sometimes develop on grafted plants (e.g. roses, fruits) below the bud union and if possible, should be removed entirely close to the root.

Indicator plants Certain plants indicate the soil conditions by their presence. Stinging nettle are found on nutrient-rich soils, horse tail on very wet and thyme on rather dry sites. **Moss** on the lawn indicates constrained vitality of lawn grasses. The reason for this can be nutrient deficiency (nitrogen), solidified soil, too low pH value, waterlogging or too much shade. Through measurements such as thatching, application of sand and liming of too acidic soil, can counteract the spread of moss. Moss destroyers do not fix the cause for the occurrence of moss.





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