



**GERLACH**  
**SPORTS**  
INTRACHEM BIO DEUTSCHLAND

# Products



Environmentally friendly and powerful care concepts

# Our products

## ■ Turfrevolution®

Turfrevolution®

## ■ Finest Turf (FT)

FT Greens Pro 20-2-16-2 + 2 Fe

FT Fairway Pro 25-5-15-2

FT N30+Fe 30-0-0 + 3 Fe

FT Kali plus 0-0-27-10

## ■ Roots®

Thatch-less™

EndoRoots® granular 3-3-4

EndoRoots® soluble

## ■ Liquid fertilizer

FT liquid Green 12-4-8

Turf Vital® 9-3-6

Microdoc Turf

Baseline

## ■ Wetting Agents + Dew Control

Miracle

Alleviate

Antitau plus

Pro Gun Applicator

Liquid Applicator

## ■ Vitalization and Activation

BLACKJAK® SC

BOMBARDIER

4 ProFence GOLF

5 Recover Rx® 3-18-18

6 Intrachem® Phosphor-Amino-Kalium

7 Actisil

8 Quentisan® Algenkonzentrat

AQ-861

## 9 ■ Microorganisms

### 10 Vitalizing

11 Tmix plus®

Trichostar®

Promot® Plus

### 12 Lake and pond clarifier

13 Lake Relief™

14

## 15 ■ Micronutrient

Mikro Plus

GoGreen® Plus 12-0-6 + 6 Fe

17 GoGreen® Granules 2-0-10 + 8,7 Fe

18 CAOS XT

19 SCHWEFAL® flüssig

20 Quentisan® BoS

21 Quentisan® CuS

Quentisan® Zink

## ■ Spreader + Sticker

Nu-Film®-P

Vapor Gard®

## ■ Fertilizer lime

FT Kalk 88 Grade I extra



Approved for organic farming

### \* Important note

Some products in our program are not always on stock. These are in the product overview as well as in the catalog marked with an asterisk (\*). We ask you to pre-order these products as early as possible (by the end of the year), so we can deliver you on time.







# Turfrevolution®

Premium fertilizer for golf courses



INGREDIENTS  
NPK organic-mineral

The complete package for constant growth: Turfrevolution® is a natural nutrient concept, based on organic raw materials. The complex of organic-mineral nutrients with bacteria, fungi, algae extracts, amino acids and carbohydrates makes Turfrevolution® a performance package with almost 100 % active substances.

## Advantages

- balanced combination of nutrients and microorganisms
- for optimized nutrient uptake
- premium granulation
- decreased nutrient leaching
- extremely low-salt due to organically bound nutrients
- supports thatch-reduction
- slow and steady growth
- no burning and smearing
- super easy usage

### Specifications

<b>Composition</b>	Total nitrogen (N) 15.0 %, 2.11 % ammonium-N, 5.57 % urea-N, 3.58 % methylene urea, 3.79 % organic nitrogen, total phosphate (P <sub>2</sub> O <sub>5</sub> ) 3.0 %, potassium oxide (K <sub>2</sub> O) 8.0 %, magnesium (Mg) 0.23 %, sulfur (S) 5.45 %, iron (Fe) 1.5 %, manganese (Mn) 0.09 %, organic matter 30.58 %, microorganisms (bacteria and fungi)
<b>Specifications</b>	Turfrevolution® 12-2-12: Balanced constant supply of N and K Turfrevolution® 15-3-8: High N-formulation for the application from May
<b>Application</b>	15-40 g/m <sup>2</sup> every 4 weeks. High N-formulation for application from May until the end of season.
<b>Package</b>	20 kg bag, palette: 50 x 20 kg

# FT Greens Pro 20-2-16-2 + 2 Fe

Premium mineral fertilizer for golf courses



**INGREDIENTS**  
NPK + Mg and Fe

Fast-acting starter fertilizer with iron for intensive coloring. Great for greens, tees and sports fields. The special manufacturing process, the compaction, guarantees an even nutrient distribution and fast solubility.

## Advantages

- micro-granulation for golf greens
- premium mineral fertilizer for greens, tees and sports fields
- long-term effect because of multistep methylene-urea chains
- controlled even nutrient release
- extremely fast soluble
- no smearing
- absolute homogeneity because every grain contains all nutrients
- granulation: 1-2 mm

### Specifications

<b>Composition</b>	NPKMg + Fe, 20 - 2 - 16 - 2 + 2
<b>Application</b>	10-30 g/m <sup>2</sup> , duration of effect 1-2 month
<b>Package</b>	25 kg bag, palette: 40 x 25 kg

# FT Fairway Pro 25-5-15-2

Premium mineral fertilizer for golf courses



INGREDIENTS  
NPK + Mg

Medium-speed long-term fertilizer, especially for fairways, tees and sport fields. The special manufacturing process, the compaction, guarantees an even nutrient distribution and fast solubility.

## Advantages

- premium mineral fertilizer for fairways, tees and sports fields
- long-term effect through multistep methylene-urea chains
- controlled, even nutrient release
- extremely fast soluble
- absolute homogeneity because every grain contains all nutrients
- no smearing
- granulation: 1-3 mm

### Specifications

Composition	NPK+Mg, 25 - 5 - 15 - 2
Application	10-30 g/m <sup>2</sup> , duration of effect 2-4 month
Package	25 kg bag, palette: 40 x 25 kg



# FT N30+Fe 30-0-0 + 3 Fe

Premium mineral fertilizer for golf courses



INGREDIENTS  
N + Fe

Long-term nitrogen fertilizer for consistent N supply on fairways and sports fields. The special manufacturing process, the compaction, guarantees an even nutrient distribution and fast solubility.

## Advantages

- premium mineral fertilizer for fairways, semi-rough and sports fields
- long-term effect up to 6 months through multistep methylene urea chains
- controlled even nutrient release
- intense colour through nitrogen-iron complex
- extremely quick soluble
- no smearing
- absolute homogeneity because every grain contains all nutrients
- granulation: 1-3 mm

### Specifications

Composition	N + Fe, 30 + 3
Application	10-30 g/m <sup>2</sup> , duration of effect 4-6 month
Package	25 kg bag, palette: 40 x 25 kg

# FT Kali plus 0-0-27-10

Premium mineral fertilizer for golf courses



INGREDIENTS  
K + Mg

Potash-magnesium fertilizer especially for green, tees and sports fields. The special manufacturing process, the compaction, guarantees an even nutrient distribution and fast solubility.

## Advantages

- micro-granulation for greens, tees and sports fields
- controlled even nutrient release
- extremely quick soluble
- no smearing
- absolute homogeneity because every grain contains all nutrients
- granulation: 1-2 mm

### Specifications

Composition	NPKMg, 0 - 0 - 27 - 10
Application	10-30 g/m <sup>2</sup>
Package	25 kg bag, palette: 40 x 25 kg



# Thatch-less™

Microbe/Enzyme blend for  
thatch management



## INGREDIENTS

Bacteria and enzymes

Thatch-less™ contains a special combination of natural, high-performance microorganisms and powerful enzymes for thatch-reduction. It enhances the penetration of the green with water and nutrients, resulting in a true, even turf.

## Advantages

- success already recognizable after 30 days
- supports thatch-reduction
- compensates less soil tilling
- reduces infection pressure
- efficacy scientifically proven

## Specifications

<b>Composition</b>	Bacteria and enzymes
<b>Application</b>	10 l/ha, 3 times in 10 days interval, temperature min. 15°C, water volume: 600-800 l/ha
<b>Package</b>	2 x 10 l canister

# EndoRoots® granular 3-3-4

Mycorrhiza for fast and stable establishment of turf



## INGREDIENTS

Endo-mycorrhiza + organic nutrients and adjuvants

EndoRoots® granular is a highly concentrated inoculum of spores from 9 endo-mycorrhiza strains. The specific microorganisms were individually selected for special performance on sport lawn grasses. EndoRoots® granular is bound to organic fertilizer and also contains ingredients from Roots® concentrate.

## Advantages

- accelerates the growth and establishment of lawns
- supports a healthy soil biology
- increases nutrient and water absorption
- improves the root system of turf
- permanent, several years lasting symbiosis
- slower thickening of cell walls for a longer life of root hairs
- increased stress resistance to drought, moisture, cold, heat, nutrient deficiency, low pH and salinization
- micro granulated

## Specifications

<b>Composition</b>	<i>Glomus intraradices, Glomus mosseae, Glomus aggregatum, Glomus clarum, Glomus monosporus, Glomus deserticola, Glomus brasilianum, Glomus etunicatum, Gigaspora margarita</i>
<b>Application</b>	500 kg/ha each in spring and autumn
<b>Package</b>	20 kg bag, palette: 50 x 20 kg

# EndoRoots® soluble

**Mycorrhiza for fast and stable establishment of turf**



**INGREDIENTS**  
**Endo-Mycorrhiza**

Fully water-soluble injectable endo mycorrhiza product. It contains spores of 9 different species of mycorrhiza and is therefore suitable for almost all plants. EndoRoots® has been specially developed to promote root growth and increase stress resistance of plants.

## Advantages

- accelerates growth and establishment of lawns
- supports a healthy soil biology
- increases nutrient and water absorption
- improvement of the root system of turf
- permanent, several years lasting symbiosis
- slower thickening of cell walls for a longer life of root hairs
- increased stress resistance to drought, moisture, cold, heat, nutrient deficiency, low pH and salinization
- 100 % water soluble

## Specifications

<b>Composition</b>	<i>Glomus intraradices, Glomus mosseae, Glomus aggregatum, Glomus clarum, Glomus monosporus, Glomus deserticola, Glomus brasilianum, Glomus etunicatum, Gigaspora margarita</i>
<b>Application</b>	Sods and sports fields, planting: dilute 450 g/500 m <sup>2</sup> in about 500 l/ha water. Spray the soil before sowing or laying grass sod. When sowing, it's also possible to pour with EndoRoots® during the germination phase. In established lawn layers EndoRoots® must be applied by injection. In case of dry application, water thoroughly.
<b>Package</b>	12,245 kg bucket



# FT liquid Green 12-4-8

Premium liquid fertilizer for golf courses



INGREDIENTS  
NPK

FT (Finest Turf) liquid Green is a balanced liquid fertilizer concentrate from the Finest Turf program. For a fast and direct nutrient supply over the leaf.

## Advantages

- optimized nutrient uptake
- stable cell structure and high stress tolerance
- fast compensation of nutrient deficiency
- improves colour and quality
- all-season applicable

### Specifications

<b>Composition</b>	NPK 12-4-8 + 5 % seaweed, 1 % iron and trace elements
<b>Application</b>	20-60 l/ha water volume: 300-1200 l/ha
<b>Package</b>	2 x 10 l canister, 210 l barrel*, 1000 l IBC*

# Turf Vital® 9-3-6

Microbial liquid fertilizer with iron,  
manganese and zinc



## INGREDIENTS

NPK + Fe, Mn, Zn + Bacillus

Turf Vital® 9-3-6 combines a unique combination of highly concentrated microorganisms, biostimulants, macro- and micronutrients in a single formulation. Turf Vital® 9-3-6 promotes root activity and improves the vitality of plants.

## Advantages

- maximizes nutrient absorption under heat stress
- improves color and quality through more chlorophyll formation
- prevents root reduction in the summer
- maintains root mass under stresses such as heat and dryness
- reduces infection risks in the summer

### Specifications

<b>Composition</b>	NPK 9-3-6 + Fe, Mn, Zn + Bacillus
<b>Application</b>	30-60 l/ha, every 2-4 weeks as soil fertilizer, water volume: 600-1200 l/ha
<b>Package</b>	2 x 10 l canister

# Microdoc Turf

EC liquid fertilizer for nutrient optimization  
from autumn to spring



## INGREDIENTS

NK + Fe and trace elements

Microdoc Turf is a concentrated complex of iron, trace elements and nitrogen. It supports grasses through thicker cell walls during problematic vegetation phases. A spreader and sticking agent ensures an even distribution and maximum absorption.

## Advantages

- iron-spreader agent combination for leaf hardening
- fast absorption and green coloration (usually within 24 hours)
- long duration of action about 3-6 weeks
- all-season applicable
- especially effective from autumn to spring
- optimal use in a concept together with Antitau plus
- composition ensures an optimized nutrient supply

## Specifications

<b>Composition</b>	10.5 % N total (10.5 % methylene-urea), 0.5 % K <sub>2</sub> O water soluble potassium oxide, 5.5 % Fe iron-complex, 1.4 % trace elements (Mg, Mn, Cu, B, Zn, S, Mo)
<b>Application</b>	Microdoc Turf can be used in any season, provided the sward is dry and there is no immediate rainfall. No use in frost. Best results are achieved right after mowing. 40 l/ha in 700 l/ha of water. Application every 3-6 weeks.
<b>Package</b>	120 l barrel, 210 l barrel, 2 x 10 l canister



# Baseline

## Stress-reduction for vital plants



### INGREDIENTS

NK + carbohydrates, amino acids, spreading agent and trace elements

Baseline is a nutrient and biostimulant based supplement to help the plant against stress. It promotes the vitality of plants and pushes development of grasses, so damaged places could recover very fast. A wide range of amino acids naturally chelates the nutrients for a quicker uptake.

## Advantages

- quick uptake in stressed conditions
- fast regeneration
- improves turf quality
- surfactant based system that lowers the surface tension on the plant stem
- micro-nutrient package including magnesium, copper, boron, manganese, molybdenum and zinc
- contains rapidly absorbable sugars as an immediate energy source
- contains carbohydrates which provide building blocks for plant structural components, such as cellulose

### Specifications

<b>Composition</b>	total nitrogen (N) 11.0 %, ureic nitrogen 11.0 %, potassium oxide (K <sub>2</sub> O), potassium (K) 6.6 %, bio-stimulant + trace elements 10 %, penetrating surfactant 3 %
<b>Application</b>	40 l/ha monthly or more frequent in phases of stress
<b>Package</b>	2 x 10 l canister

# GERLACH SPORTS

INTRACHEM BIO DEUTSCHLAND





# Miracle

High performance wetting agent - totally biodegradable



## INGREDIENTS

Alkyl-glycol-triblock-copolymer + Spreading Agent

Miracle has set a benchmark in wetting agent technology: An unique formulation makes it possible to moisten dry spots almost completely with regular use. This provides greenkeepers a highly developed technology for moisturing and irrigation, which is fully biodegradable.

## Advantages

- intensive penetration and fixation of water in hydrophobic soil zones
- homogeneous horizontal and vertical water distribution supports the outflow of excess water
- no burning of the grasses
- reduction of water requirements
- fully biodegradable

## Specifications

<b>Composition</b>	Alkyl-glycol-triblock-copolymer + spreading agent
<b>Specifications</b>	Miracle liquid, Miracle Granulat, Miracle Tablets
<b>Application</b>	<b>liquid:</b> as program 20 l/ha every 4 weeks, water volume: 700-1000 l/ha; single use 50 l/ha, water volume 5000 l/ha <b>Granules:</b> 250 kg/ha as needed or every 6-8 weeks <b>Tablets:</b> as needed in the Pro Gun Applicator (or similar device)
<b>Package</b>	liquid: 4 x 5 l canister, 210 l barrel Granular: 20 kg bag Tablets: 6 x 250 g package



# Alleviate

Innovative patented complex for  
reducing dry patch



## INGREDIENTS

hydrous hydrophobic polymers

Alleviate represents a completely new way for treating „localized Dry Spot“ (LDS). Because of the unique surfactant-hydrophobic-chemistry based technology, Alleviate directly acts on wax and lipid layers that cover soil particles, removes these compounds and reconstructs the natural water retention capacity of the soil.

## Advantages

- acts directly on the cause of Localised Dry Patch
- long-lasting effect
- extremely safe on all types of turf grass
- part of the program for LDS management in combination with Miracle
- harmless to microorganisms

## Specifications

<b>Composition</b>	hydrous hydrophobic polymers
<b>Specifications</b>	1. Alleviate liquid 2. Alleviate Granulat
<b>Application</b>	Fine Turf: 20 l/ha in 1000 l/ha water volume Outfield Turf: 10-20 l/ha in 1000 l/ha water volume Application any time. Best: First application at the beginning of spring, second application 14 days later. Third application in autumn, when application of wetting agents ends.
<b>Package</b>	Alleviate liquid: 4 x 5 l Alleviate Granulat: 20 kg

# Antitau plus

## Concentrated liquid dew control



**INGREDIENTS**  
polymeric surfactants

Dew on turf, with its long lasting moisture, forms good conditions for diseases. Additional dew encourages moss growth. Dew reduction therefore leads to a better and more stable development of grasses. AntiTau plus saves time and money.

### Advantages

- effective prevention of dew formation up to 14 days after application
- replaces costly brushing/switching of greens
- clean turf cut
- earlier start of mowing operations because of drier grass
- cultural method for less fungal growth
- less moss growth
- prevents hoarfrost: no change of flags in the morning, earlier game start possible
- good biocompatibility
- cost effective

### Specifications

<b>Composition</b>	polymeric tenside
<b>Application</b>	10-12 l/ha in 400 l/ha water. Application every 7-14 days. Shake well before use. Application on dry grass, if possible. Effective for 7-10 days, depending on factors like grass moisture at application time, temperature, dew intensity, mowing frequency and grass type.
<b>Package</b>	2 x 10 l canister, 120 l barrel, 210 l barrel



# Pro Gun Applicator

**Sprayer for local treatment of dry spots with  
Miracle tablets**

Pro Gun Applicator is a sprayer for local wetting agent treatment of dry spots with Miracle Tablets. It is connected via usual hose coupling.

## Advantages

- local treatment of dry spots
- fast and flexible use
- optimally effective through the use of Miracle Tablets

### Specifications

<b>Application</b>	Insert Miracle Tablets and connect to hose coupling.
<b>Package</b>	1 piece





# Liquid Applicator

Sprayer for local treatment of dry spots  
with Miracle

Liquid Applicator is a sprayer for local wetting agent treatment of dry spots with Miracle liquid. It is connected to standard hose couplings.

## Advantages

- local treatment of dry spots
- fast and flexible use
- optimally effective through the use of Miracle liquid

### Specifications

Application	Fill in Miracle liquid and connect to hose coupling.
Package	1 piece

# BLACKJAK® SC

## Strong roots - strong plants



### INGREDIENTS

Humic, Fulvic and Ulmic acid



The special, non-alkaline production process of BLACKJAK® SC provides all humic substances present in Leonardite. Humic substances have a positive influence on soil properties and plant growth. BLACKJAK® SC supports the plant in its development as well as in stressful situations.

## Advantages

- increased water holding capacity
- increased soil ventilation
- high ion exchange capacity (both cations and anions)
- increased buffer capacity in the soil
- increases microbial soil activity
- natural chelator for various nutrients
- stimulates plant growth, especially root development
- increases the germination rate and seedling development
- supports nutrient uptake

### Specifications

Composition	20 % humic acid, fulvic acid, ulmic acid
Application	1-5 l/ha, if required
Package	2 x 10 l canister

# BOMBARDIER

## Vegetable amino acids from microbial fermentation



### INGREDIENTS

Amino acids, Fulvic acid, Polysaccharides



BOMBARDIER represents a new, plant-based amino acid concept working on soil and plant. The product is a complex of amino acids, fulvic acids and polysaccharides (sugars). The microbial fermentation process guarantees a specifically high content of effective ingredients and a high content of organic nitrogen of more than 8 %.

## Advantages

- ▶ prevention and regeneration of stress damage
- ▶ rapid action due to immediate absorption over the leaf
- ▶ organic nitrogen fertilizer
- ▶ additionally contains phosphate, iron and potassium, phytohormones, enzymes and vitamins
- ▶ buffers effects of light deficiency and phytotoxicity
- ▶ very good leaf adhesion
- ▶ supports the effectiveness of other agents in a spray mixture

### Specifications

<b>Composition</b>	total nitrogen (N) 8.4 %, amino acids 18 % w/v, fulvic acids und polysaccharides (sugar) 30 % w/v
<b>Application</b>	5-10 l/ha in 500-800 l/ha water from March to October every 2-4 weeks. The product could be used all-the-year at appropriate temperatures. In times with high stress increase the number of applications, instead of increasing the concentration.
<b>Package</b>	4 x 5 l canister



# ProFence GOLF

Vitalizing liquid fertilizer with sulfur, iron and phosphite



INGREDIENTS  
NP + Fe + SO<sub>3</sub>

ProFence GOLF improves the vitality of grasses, stimulates growth and promotes regeneration. The plants are strong and vital during the whole season.

## Advantages

- unique iron-phosphite + nitrogen mix
- effective application, even at low temperatures
- vitality and fitness even in problematic environmental conditions
- fast and intense green colouring

### Specifications

Composition	NP + Fe + SO <sub>3</sub> , 13-6 + 4.6 + 10.5
Application	20 l/ha, follow-up treatment after 10 days, as a program every 4-6 weeks, water volume 500 l/ha
Package	4 x 5 l canister

# Recover Rx<sup>®</sup> 3-18-18

Foliar fertilizer with salicylic acid and an unique phosphite-phosphor mixture



INGREDIENTS  
NPK + Salicylic Acid

Recover Rx<sup>®</sup> 3-18-18 is a high-quality product that provides grasses with nutrients while activating the plant's own stabilizing powers. A unique combination of ammonium-N, phosphite and salicylic acid supports the development. Plant-available phosphate supports root development.

## Advantages

- contains 100 % soluble salicylic acid
- improves root growth
- increases cell division
- strengthens the vitality of grasses
- increases tolerance to unfavorable developmental conditions
- improves regeneration

### Specifications

<b>Composition</b>	N (total nitrogen) 3 %, ammonium-N 3 %, phosphorus (P <sub>2</sub> O <sub>5</sub> ) 18 %, potassium (water-soluble K <sub>2</sub> O) 18 %, salicylic acid 0.5 % pH 7 Derived from urea, polyammonium phosphate, potassium hydroxide, monopotassium phosphate, potassium phosphite
<b>Application</b>	Use on grass: 10-15 l/ha. Repeat every 14-30 days during the growing season.
<b>Package</b>	2 x 10 l canister

# Intrachem® Phosphor-Amino-Kalium

Liquid NK fertilizer + phosphite



**INGREDIENTS**  
NK + trace elements

Intrachem® Phosphor-Amino-Kalium is a highly concentrated phosphite fertilizer. The special composition supports a culture-specific nutrient supply. In difficult phases the vitality and robustness of grasses is promoted.

## Advantages

- mixable with many products (except carbonates and sulphates pH > 10)
- vitalizing
- optimizes existing fertilizer and crop protection strategies
- fast and efficient effect over the leaf

Specifications	
Composition	NK 3-15 trace elements contains phosphonate (428 g / l)
Application	5-10 l/ha
Package	2 x 10 l canister, 200 l barrel, 1000 l IBC



# Actisil

## Organically bound silicon



### INGREDIENTS Silicon

The active element silicon in Actisil permeates through the cuticle and epidermis after leaf treatment. It is absorbed by the plant and stored in the cell membranes, so the cell wall becomes stronger. This leads to an increase in mechanical resistance of the tissue.

## Advantages

- best quality
- faster greens
- reinforced cell walls create more robust grasses
- clean turf cut

### Specifications

<b>Composition</b>	0.6 % organically bound silicon
<b>Application</b>	single application: 20 l/ha or as part of a program: 10 l/ha every 2-3 weeks water volume: 600 bis 1200 l/ha
<b>Package</b>	2 x 10 l canister

# Quentisan® Algenkonzentrat

## Wellness for the turf



**INGREDIENTS**  
Red & brown algae



Quentisan® Algenkonzentrat is a concentrate of pure juice from live-harvested brown and red algae. It contains about 92 % plant cell water and about 10 % available, natural nutrients. It strengthens and promotes metabolic processes. Stress situations can be reduced and overcome more easily.

## Advantages

- improves the vitality of plants and leads to a faster overcoming of stressful situations
- supply of trace elements and minerals
- encouraging the development of grasses through enzymes and plant hormones
- the complex from red and brown algae leads to a maximum of valuable ingredients
- root development and establishment of mycorrhizal fungi is significantly improved
- increased nutrient uptake
- use of fertilizers can be reduced
- removal of thatch through improved microbial activity

### Specifications

<b>Composition</b>	concentrate from red & brown algae
<b>Application</b>	2-4 x 2-5 l/ha, depending on culture
<b>Package</b>	2 x 10 l canister, 800 l IBC

# AQ-861

## Biocide for water disinfection



### INGREDIENTS

water, NaCl, NaOCl

AQ-861 is a biocide for water disinfection. The use of AQ-861 can reduce excessive development of microorganisms.

## Advantages

- disinfects water and surfaces
- destroys harmful microorganisms
- optimal application in combination with Tmix plus® and Trichostar®

### Specifications

<b>Composition</b>	2.3 % NaCl 0.55 % NaOCl redox potential: ca. 1300 mV pH ca. 9.5
<b>Application</b>	6 l/ha in ca. 300 l/ha water Two applications in intervals of 1-2 days. After second application add microbial antagonists such as Trichostar® or Tmix plus®.
<b>Package</b>	2 x 10 l canister



**GERLACH**  
**SPORTS**  
*INTRACHEM BIO DEUTSCHLAND*



# Tmix plus®

For active and fertile soils



## INGREDIENTS

5 types of microorganisms + mycorrhiza



Tmix plus® is a microbial soil additive especially for sports turf. Tmix plus® is powered by 5 microorganisms that can actively work for optimal soil life and healthy grass growth in almost any climate and weather condition. In addition, Tmix plus® contains a complex of 9 strong endo-mycorrhiza strains.

## Advantages

- better nutrient-availability for plants
- activates plants defence mechanisms
- increases tolerance to stresses such as salinity, heat and drought
- can improve growth of the roots
- compatible with all fertilizers (except copper) and chemical pesticides

### Specifications

<b>Composition</b>	2 <i>Trichoderma</i> -Strains (e.g. Trichostar®), <i>Pseudomonas</i> , <i>Streptomyces</i> , <i>Bacillus</i> , <i>Mycorrhiza</i>
<b>Application</b>	3-5 kg/ha, applications from March/April at intervals of 4-6 weeks, water volume approx. 800 l/ha, to ensure good wetting as well as moisture penetration of the root zone
<b>Package</b>	1 kg bag

# Trichostar®

## Microbial activity for autumn and winter



### INGREDIENTS

*Trichoderma harzianum* T58



Trichostar® is a liquid soil additive containing the uniquely cold-tolerant *Trichoderma* strain T58. This strain has been specially selected for vital turf of high quality. Use Trichostar® best in autumn and winter when temperatures drop below 10-12°C.

## Advantages

- can be used at low temperatures (2°C)
- activates and vitalizes the soil life
- promotes root development and so the supply of nutrients and water
- reduces abiotic stress caused by e.g. dryness, moisture, heat or even frost
- can be combined with most mineral fertilizers
- its effectiveness is not affected by herbicides and insecticides - however, some fungicides may affect the effectiveness

### Specifications

Composition	<i>Trichoderma harzianum</i> T58
Application	5-10 l/ha or 0.5-1.0 %, soil application every 30-60 days, foliar application every 7-14 days
Package	0.5 l bottle, 5 l canister



# Promot<sup>®</sup> Plus

## Trichoderma soil amendment



INGREDIENTS  
Trichoderma



Promot<sup>®</sup> Plus is a proven Trichoderma-product with spores and hyphae of the fungus *Trichoderma harzianum* and *Trichoderma koningii*. The spores multiply in the hair root area of grasses and ensure a healthy soil biology and promote the development, vitality and roots of grasses.

### Advantages

- increases the vitality and robustness of grasses
- increases the tolerance to environmental stress
- ensures a healthy soil biology
- support and boost of root development
- applicable up to 8°C soil temperature

#### Specifications

<b>Composition</b>	<i>Trichoderma harzianum</i> : min. $2 \times 10^7$ CFU/g, <i>Trichoderma koningii</i> : min. $3 \times 10^7$ CFU/g
<b>Application</b>	10 kg/ha, repetition every 2 months Seed treatment: 5 g/2 kg seed
<b>Package</b>	0,5 kg and 10 kg bucket

# Lake Relief™

Clear water - completely ecological



**INGREDIENTS**  
Bacteria + Enzymes

Lake Relief™ improves water clarity, reduces odours and restores the natural balance in the ecosystem. Lake Relief™ contains a proprietary blend of natural bacterial strains and enzymes. These natural strains quickly populate the target area to improve water quality. Lake Relief™ is biodegradable.

## Advantages

- for ecological, clean waters
- water-soluble bags for easy use
- effective in a wide pH range of 5.5 to 8.5
- removal of organic mass on pond surface
- safe for fish, animals and pond biology

### Specifications

<b>Composition</b>	Natural bacterial strains and enzymes
<b>Application</b>	25 bags for 4000 m <sup>2</sup> pond surface. Minimum water temperature: 13-15°C
<b>Package</b>	25 x 454 g pouch

# Mikro Plus

## Fully chelated micronutrients



### INGREDIENTS Trace elements

Micro Plus is a concentrated liquid fertilizer that provides plants with easily available micronutrients. Micro Plus can be used as a foliar fertilizer as well as for fertigation. Full chelation of micronutrients ensures their stability in concentrated and normal nutrient solutions as well as in blends with other pesticides.

## Advantages

- high content of fully chelated trace elements
- prevention and control of deficiency symptoms
- stable in a wide pH range (3-7)
- applicable on leaves and soil

### Specifications

<b>Composition</b>	Boron (B) 0.2 %, chelated copper (Cu) 0.1 %, chelated iron (Fe) 2.0 %, chelated manganese (Mn) 0.8 %, molybdenum (Mo) 0.05 %, chelated zinc (Zn) 0.3 %, pH: 3-7
<b>Application</b>	Fertigation: 0,03-0,1 l in 1000 l/ha water spray mixture. Leaf fertilization: 0,05-0,1 % in 100 l/ha water volume.
<b>Package</b>	2 x 10 l canister



# GoGreen® Plus 12-0-6 + 6 Fe

Liquid NK fertilizer + 6 % Fe-chelate



INGREDIENTS  
NK + Fe

GoGreen® Plus is a proven NK liquid fertilizer with a highly concentrated iron chelate complex. The iron of GoGreen® Plus is 100 % plant available and will not be fixed in the soil. Nutrients can be absorbed via the leaf and the root.

## Advantages

- intense and long-lasting green colour
- rapid supply of grasses with iron and the main nutrients  
nitrogen and potassium
- no rapid growth

### Specifications

Composition	NPK 12 - 0 - 6 + 6 Fe
Application	10-20 l/ha water volume: 300-600 l/ha
Package	2 x 10 l canister

# GoGreen® Granules 2-0-10 + 8,7 Fe

Slow-release-Fe-K-granules + trace elements  
+ wetting agent



INGREDIENTS  
NK + Fe

GoGreen® Granules are formulated on iron pyrites to give maximum effect when dissolved in rain water, with up to 6 months longevity. The novel composition provides a fast and long-lasting green colour. Because of optimal nutrition, the health of grasses is promoted.

## Advantages

- fast nutrient uptake and greening effect within 3-5 days
- long-lasting effect up to 6 months
- slow release of iron into soil
- wetting agent ensures nutrient uptake and reduces dew
- prevention and control of iron chlorosis
- low amount N ensures supply and colour without promoting growth
- micro-granulation for optimal even distribution

### Specifications

<b>Composition</b>	NK + Fe 2-10 + 8.7
<b>Application</b>	200-400 kg/ha every 3-6 month. GoGreen® Granules may be used at any time of the year if the turf is dry and rainfall is imminent. Do not apply in frost conditions.
<b>Package</b>	20 kg bag, palette 50 x 20 kg

# CAOS XT

100 % active calcium



## INGREDIENTS

Calcium, Boron, Amino acids

CAOS XT is an innovative calcium formulation based on two chelating agents - lignosulfonate and gluconic acid. The calcium concentration is especially high and 100 % available to plants. The calcium in CAOS XT - unlike other products - also reaches the outer leaf edges.

## Advantages

- contained boron increases calcium mobility in the plant
- compensation/prevention of calcium deficiency symptoms irrespective of soil conditions
- low pH (3-4) for good compatibility
- amino acids provide improved uptake via leaf and root
- improved disease tolerance because of harder cell walls
- improved root development
- better growth

## Specifications

<b>Composition</b>	total nitrogen (N) 0.4 %, organic substance 17 %, water soluble calcium 15 %, water soluble boron 0.7 %, free amino acids 2.3 %
<b>Application</b>	10 l/ha every 4 weeks or as needed. CAOS XT can be used in any season to all types of grass. Leaf application, irrigate earliest two hours after application. Don't use during frost or very low temperatures. Apply with conventional sprayers with fine nozzles to get a medium to fine spray quality.
<b>Package</b>	4 x 5 l canister



# SCHWEFAL® flüssig

High - quality - sulfur



INGREDIENTS  
Elemental sulfur

SCHWEFAL® contains liquid sulphur with hydrophobic properties and therefore SCHWEFAL® contains no surfactants. The sulphur is manufactured in a new production process with the help of microorganisms. As a result, it sticks longer on the leaf and is available for the plant.

## Advantages

- optimal adhesion because without the use of tensides
- provides the plant with sulphur for a long period of time
- supports the whole plant organism

### Specifications

<b>Composition</b>	46.1 % elemental sulphur
<b>Application</b>	Depending on the condition of supply 2-6 l/ha at several times. Use in high concentration to lower soil pH.
<b>Package</b>	2 x 10 l canister

# Quentisan® BoS

## Package of boron and sulfur



INGREDIENTS  
B, S



Quentisan® BoS is an innovative liquid fertilizer for the balanced and optimal supply of boron and sulphur. Boron is essential for cell walls. Sulphur is important for the formation of essential amino acids and enzymes, it improves N-utilization and evolves different metabolites.

### Advantages

- better adhesion
- long-time effect
- optimal nutrient supply with boron and sulphur

#### Specifications

<b>Composition</b>	8 % boron (106 g/l as borethanolamine), 14 % sulphur (169 g/l elemental sulphur), seaweed and amino acids
<b>Application</b>	1-3 x 3-5 l/ha
<b>Package</b>	2 x 10 l canister

# Quentisan® CuS

## Package of copper and sulfur



INGREDIENTS  
Cu, S



Quentisan® CuS is an innovative liquid fertilizer for the balanced and optimal supply of copper and sulphur. Cu promotes e.g. photosynthesis, protein formation and stability. Sulphur is important for the formation of essential amino acids and enzymes, it enhances N utilization and evolves different metabolites.

### Advantages

- better adhesion
- long-time effect
- optimal nutrient supply with copper and sulphur

#### Specifications

<b>Composition</b>	10 % copper (158 g/l copper oxychloride), 34 % sulphur (462 g/l elemental sulphur), 0.5 % zinc (7 g/l zinc from sphalerite), seaweed and amino acids
<b>Application</b>	1-8 x 0,5-4 l/ha
<b>Package</b>	2 x 10 l canister



# Quentisan® Zink

Leaf fertilizer for optimal zinc supply



INGREDIENTS  
Zn



Quentisan® Zink is a liquid fertilizer for optimal and balanced zinc supply. High phosphorus content, cold and wet conditions, humic soils and high pH make zinc poorly available to plants. Zinc is a component of numerous enzymes, has an influence on respiratory metabolism and photosynthesis and is important for cell division.

## Advantages

- maximum zinc concentration
- improved formulation
- optimal plant supply

### Specifications

Composition	43 % zinc (750 g/l)
Application	1-4 x 0,5-1 l/ha
Package	4 x 5 l canister

# Nu-Film®-P

Premium stabilizer for active ingredients



INGREDIENTS  
Pinolene®



Nu-Film®-P is an active ingredient stabilizer - based on pine-oil - for plant protection products and foliar fertilizers to increase leaf wetting, adhesion, penetration and rain resistance of the spray mixture.

## Advantages

- stabilizes active ingredients in fertilizers and pesticides
- increases the effectiveness of active ingredients in a spray mixture
- protects 7 to 10 days from loss of active substances due to sun, wind and especially rain
- polymerizes on the leaf surface and depolymerises, therefore no residues

### Specifications

<b>Composition</b>	96 % Pinolene® (multiply polymerized pine oil)
<b>Application</b>	0,3-0,55 l/ha
<b>Package</b>	12 x 1 l bottle, 4 x 4 l canister, 2 x 10 l canister, 200 l barrel

# Vapor Gard®

Antitranspirant - antidesiccant



INGREDIENTS  
Pinolene®

Vapor Gard® regulates the evaporation of water, so the plants can be protected against drought stress. It improves the development and water balance of established plants. Vapor Gard® is a emulsifiable natural substance that merges with the wax layer of leaves to form a water-insoluble film.

## Advantages

- protects against water loss
- reduces drought stress
- useable in winter
- supports winter performance strategies

### Specifications

Composition	96 % Pinolene® (multiple polymerized pine oil)
Application	1-2.5 % solution, depending on the culture
Package	4 x 4 l canister



# FT Kalk 88 Grade I extra

Medium-granulated,  
fast reacting calcium carbonate



**INGREDIENTS**  
**CaCO<sub>3</sub> + MgCO<sub>3</sub>**

Fine milled and granulated calcium carbonate for calcium enrichment in calcium depleted turf and for an increase of soil pH.

## Advantages

- fast solubility
- over 80 % reactivity
- increases the Ca:Mg ratio in turf
- 90 % highly reactive CaCO<sub>3</sub> and 1.5 % MgCO<sub>3</sub>
- no increase of pH over ca. 7.2
- 2-4 mm granulation

### Specifications

<b>Composition</b>	90 % CaCO <sub>3</sub> , 1.5 % MgCO <sub>3</sub>
<b>Application</b>	500-1000 kg/ha, 1-2x a year
<b>Package</b>	600 kg Big Bag, 42 x 25 kg bag, 25 x 40 kg bag









# Products

## **Intrachem Bio Deutschland GmbH & Co. KG**

Bahnhofstraße 52  
65520 Bad Camberg  
Germany

Phone: +49 6434 90 55 100  
Fax: +49 6434 90 55 10 99  
Email: [info@intrachem-bio.de](mailto:info@intrachem-bio.de)  
Internet: [www.intrachem-bio.de](http://www.intrachem-bio.de)

## **Gerlach Natürliche Düngemittel GmbH & Co. KG**

Im Wiesenkampe 32  
30659 Hannover  
Germany

Phone: +49 511 64 78 404  
Fax: +49 511 64 78 405  
Email: [info@gerlach-duenger.de](mailto:info@gerlach-duenger.de)  
Internet: [www.gerlach-duenger.de](http://www.gerlach-duenger.de)

Copyright © 2017 Intrachem Bio Deutschland GmbH & Co. KG | Gerlach Natürliche Düngemittel GmbH & Co. KG | Revision: November 2017

Design & Layout: Masslevel - Digital Design Agency - [masslevel.com](http://masslevel.com)

Photo credits: Andreas Gerlach, © Claude Coquilleau | Fotolia, © Dave J. Kahn | iStockphoto, © StockUnlimited, © Sandralise | Dreamstime.com, © Dreamstime.com

Use plant protection products, fertilizer, bio stimulants and additives safely. Always read the label and product information before use. Please take note of the hazard and precautionary statements as well as relevant hazard pictograms given within the instructions for use.

**Environmentally friendly and powerful care concepts**