



Green faser

Products for Organic farming



Products for development, natural growth of plants and for soil improvement

- Endofiori:* is a product that doesn't contain fertilizers.
Recommended for vegetable gardening, ornamental plants, roses and green areas.
- Ortofaser:* is a specific product mix for vegetable garden plants
- Rosenfaser:* is a specific product mix for roses
- Rhodofaser:* is a specific product mix for Ericaceae (azaleas, rhododendron and Erica)
- Verdefaser:* is a specific product mix for grasslands, green areas and flowerbed



Respect the Environment and keep it clean! Nature will be grateful !

Introduction

This brochure contains all information regarding a whole new range of specific products. There are four types of specific treatment created by combining specific fertilizer with natural and organic products for soil enrichment, so it is possible to avoid the application of chemical and synthetic products and protect soil and plants safety.

Here are contained complete descriptions of the biological relationship between Mychorhizza fungi and plants, whose advantages in organic agriculture have by now been confirmed by farmers and professionals.

Mychorhizzal spores have existed in Nature for more than four hundred million years therefore they represent, as we know, one of the oldest symbiotic relationship.

These spores have efficaciously limited lots of dramatic climate changes in nature.

The spore does not need any nutrient or soil supply in farming, other than the user's wisdom; in fact it is important not use any treatment that could damage or limit the symbiotic relationship, for example the application of industrial fertilizers or fungicides/ parasiticide for plants protection.

It is important to learn how to use this organic "natural support", in this way future generations will be able to benefit of the advantages of the mycorrhization process.

What is mycorrhization ?



In agriculture and in horticulture the mycorrhization process is a cultivation technique in which the non-pathogenic fungus colonizes the vegetable plant's roots, creating a symbiotic interaction with a mutual exchange.

The fungal spore gets carbs (produced during photosynthesis) from the vegetable plant's roots and from the plant itself, while the plant receive water, mineral and nutrient substances from the fungal spore; these nutrient advance a natural development and a faster growth of the plant.

The symbiotic association composed of a fungus and a plant is called mycorrhizza; this technique is also experimented as treatment for bio-redevelopment of the soil.

Therefore Mycorrhization increases the plant resistance against drought, pathogenic agent, plant disease signs and ground parasites (nematode worms).

Our products are not genetically modified (GMO) and no genetically modification process is involved in compounds preparation

Importance and advantages of mycorrhizal spores

The importance of mycorrhizal spores is not limited to assimilation of water and nutrients from the ground. Plants associated with mycorrhizal fungi seem to be more competitive and more resistant towards environmental tensions.

- Acquisition of nutrients usually not available to plants (ex: N in organic compounds)
- Defence from hydro-stress
- Nutrients accumulation
- Fungus ifas support seeds generation in ground
- Ability to remove phenolic compounds and toxic metals from the ground (mercury, lead, zinc etc.)
- Defence from Nematodes and parasitic fungi
- Creation of nutritional net
- Transfer of nutrients from dead plants to alive plants

This has a huge influence on the eco-system, especially:

- On nutrients cycle
- On ground structure, which is improved
- On microbial population in the rhizosphere
- On primary and secondary successions of plants

For further information visit the Wikipedia web site: <http://it.wikipedia.org/wiki/Micorriza>

Shortly

How do products work ? Which are the influent factors ?

Spores effect directly on the plant roots; they assume complete control by creating a reticular structure (in picture) which envelop the roots isolating them from the soil and/or from the surrounding substratum.

Therefore they provide for:

- The passage of nutritious substances, extracted from the soil
- The passage of water as they work as accumulators, allowing the plant to get the amount of water needed.
- The increasing in the roots dimension.

Gigaspora



However this is not enough if the soil is poor in nutrients.

Bacteria fulfil this task by providing spores essential and necessary nutrients, included atmospheric nitrogen.

The specific fertilizer creates for the plant the ideal, balanced eco-system, necessary for his best development and growth by stabilising the optimal soil ph.

How often should products be used?

Usually this spores treatment should be used only **one time** since if the symbiosis has already taken place there is no need of another treatment.

Treatments with soil bacteria only and special fertilizer must be repeated during the year, with regard to the plant and soil quality

In horticulture treatments must be repeated during sowing time.



Un breve cenno/descrizione sui prodotti Green faser

- | | |
|---------------------------------|---|
| Endofiori | Produced from endo-spores
High concentration; Powdered
Specific for Ortofaser , Rosenfaser and Verdefaser |
| EndoMyk ^{Prof} | Produced from endo-spores
High concentration; Powdered
Specific for Ortofaser , Rosenfaser |
| EndoMyk ^{Conc} | Produced from endo-spores
Very high concentration; Powdered
Specific for Verdefaser |
| EricoMyk ^{Prof} | Produced from erico-spores
High concentration (<i>Trichoderma Harzianum</i>)
Substratum form
Specific for Rhodofaser |
| Bacto ^{Prof} | Produced from ground bacteria
High concentration (<i>Trichoderma Harzianum</i>)
Powdered
Specific for Ortofaser , Rosenfaser and Verdefaser |



Endofiori

Complete product **without fertilizer** (10 gr packages), soluble in water, perfect for treating ornamental plants, rose bushes, vegetable plants and for the oversowing of green areas (ericaceous plants excluded, for example azaleas).

Content of a 10 gr package

- * 10 gr. of **Endomyk^{Prof}** produced from endospores in high concentration
- * 1 gr. of **Bacto^{Prof}** bacteria useful for the soil.

The package content is enough for one treatment of 10 medium size plants or flowerbeds. The treatment must be diluted in 5/10 lt of water (1/2 lt per plant).

For vegetable garden and green areas distribute

1 gr. of product every 2 m²



Ortofaser

Complete product for specific treatment of vegetable, ornamental and indoor plants. These plants need a high quality not necessarily expensive fertilizer, a product containing a high concentration of endospores and bacteria for soil enrichment. Endospores contribute to the natural plant growth while trichoderma harzanium bacteria provide to the accelerated development of plants, which therefore grow “in a biological way”.

With a complete package (1 KG) it is possible to treat, on average,

- 50 m² of vegetable garden
- 25 medium size vegetable plants (bush roses excluded)

Package content

- * 1kg of organic gross grained fertilizer Engelhart (not soluble in water)
7% N (Nitrogen compounds), 4% P₂O₅ (Phosphates), 8% K₂O (Potassium)
- * A 25gr package containing **Endomyk^{Prof}**, a water soluble product produced from endo-spores (high concentration)
- * A 5 gr package containing five different bacteria useful for the soil and water-soluble trichoderma harzianum **Bacto^{Prof}**



Application advice

The entire product, together with seeds, is usually only once applied to the soil or to the base of the already grafted plants. Little dose of bacteria can be also added to the soil, if this one is poor in nutrients.

Due to an incompatibility with the endospores, it is suggested not apply (neither simultaneously or successively) chemical or synthetic fertilizer or fungicides.

It is also important to reduce the water amount or to extend time intervals between irrigations

It is not possible to use urea or chemical/synthetic products.

When to process the treatment ?

Usually the Ortofaser treatment has to be applied during sowing or planting in order to achieve the best results

The symbiotic relationship between endospores and the plant roots starts immediately.

Avoid product application on frozen plots of land.

Application in horticulture

Already grafted plants

➤ Pour in a 5 litres watering can the expected product dose, enough for the specified amount of plants or areas.

Example: a garden with various vegetable plants (tomatoes, aubergines, zucchini plants, radicchio, salad, green beans) needs

➤ **1 gr of product blend per 2 m²** ◀ ▶ **20 gr of fertilizer per 1 m²** ◀

➤ Uniformly distribute the blend on plant bases.

➤ Uniformly distribute the expected fertilizer dose.

➤ Irrigate a second time in order to make the product filter the soil and start symbiosis.

For sowing time

➤ Act as written above, just add seeds and the expected fertilizer dose to the water in the watering can (without the shower).

➤ Uniformly distribute the blend on the soil

➤ Irrigate a second time in order to make the product filter the soil and start symbiosis

For vase plant

➤ If plants are in small squares or vases than let the plant take root in a basic substrate. Remember to submerge the plants for 5-10 seconds in a 30/40 litre can filled with water and the content of the two envelops.

➤ Stir to ease the dilution of the product

➤ Let the substrate absorb the blend then place di plants in the soil.

➤ Keep the blend in constant movement in order to avoid the settling of the product on the bottom of the can.



Application modality on ornamental plants

Prepare the solution in a small container, mix it for a couple of minutes then pour into a 5 litre watering can the expected product dose (for 10 medium size ornamental plants, 25-30 cm)

➤ **1 gr of product blend per 1 plant** ◀

- Uniformly distribute the blend on plant bases (ca. ½ litre per plant)
- Uniformly distribute fertilizer (50-60 gr per plant)
- Irrigate a second time in order to make the product filter the soil and start symbiosis

Important annotations

- Apply the treatment immediately after the opening of the packaging
- In order to preserve the fertilizer it must be well closed.
- **Ortofaser** blend must be kept out of reach of children and must not be stored together with food.
- Avoid direct solar exposition
- Avoid temperature lower than 5° C
- It is important to reduce the amount of chemical and synthetic fertilizers (up to 50%) or completely avoid their usage.
- **Not suitable for roses (bushes or plants), Azaleas, Ericas and green areas.**



Rosenfaser

Complete product for the specific treatment of rose bushes.

These plants need a specific fertilizer, composed of endospores in high concentration and bacteria in appropriate concentration for optimal results.

With a 1kg complete package it is possible to treat:

- 10 medium size young rose bushes, either in vase or in the ground maximum height above the ground 30 – 50 cm ca.
- 5 large size rose bushes. These bushes must be planted in the ground and must be older than 5 years

Package content

- * 1 kg of Engelhart complete fertilizer in palletised form, specific for rose bushes 6% N (Nitrogen), 5% P₂O₅ (Phosphates), 9% K₂O (Potassium Oxide), 2% MgO (Magnesium oxide), 1% of iron (Iron)
- * A 30 gr package containing **Endomyk^{Prof}** endo-spores composed water soluble active ingredient (high concentrated)
- * A 10 gr package containing 5 different types of bacteria, that are useful for the soil and water soluble trichoderma harzianum **Bacto^{Prof}**

Application modality and important annotations

- Uniformly distribute the blend on plant bases (ca. ½ litre per plant)
- Uniformly distribute fertilizer (50-60 gr per plant)
- Irrigate a second time in order to make the product filter the soil and start symbiosis

Look at what has been written for ornamental plants in **Ortofaser** chapter



Rhodofaser

Complete product for the specific treatment of ericaceous plants (azaleas, rhododendron and Erica) in suitable concentration. These plants need specific treatments; therefore it is necessary to act on plant roots and on soil acidity (pH), which must be kept high (4,5–5,5).

Since soil pH in Italy is generally low (except for areas like Lago di Como and Lago Maggiore) the soil must constantly be treated.

With a 3.5 kg package it is possible to treat:

- 8 medium size azalea and erica plants both in vase and in ground (young plants); maximum height above the ground 50-70 cm ca.
- 4 large size grounded azalea and erica plants (adult plants, more than 10-15 years)
- 2 rhododendron plants



Package content

- 3,5kg of Engelhart mineral organic fertilizer in palletised form, a specific product for acidophilus plants containing
 - 7% N (Nitrogen) organic nutrients specific for ericaceous plants
 - 4% P₂O₅ (phosphates)
 - 8% K₂O (potassium oxide) soluble
 - 2% MgO (magnesium oxide)
 - 1% Fe (iron)
- * 1 package containing 1 litre (330 gr ca) of erico-spores product (**Ericomyk Prof**)

Application advice

Two annual applications must be planned

- The fertilizer (half package) and the erico-spores based product must be used during the first treatment (equally distributed among the plants to treat)
- The second half of the package must be used during the second treatment.
- It is important to reduce the water amount or to extend time intervals between

irrigations. It is necessary to keep on use special fertilizer in the following years.

The 1kg package is also available (for one annual application)



When to process the treatment ?

The first Rhodofaser Treatment must be applied in Spring, after plants blooming.

The second treatment must be applied in Autumn (October).

Avoid distribution over frozen plots of land.

Special fertilizer

Following treatments must be applied together with Special fertilizer, which is necessary in order to keep soil acidity balanced.

Adult (10 years or more) or large plants need a third fertilization in July.

Application modality

- Prepare the ground around the plant by removing leaves and branches.
- Remove the soil in a 30-40 cm diameter for 2-5 cm in depth.
- Uniformly distribute the indicated amount of product specific for the plant type.
- Cover the area with the earlier removed soil or with a fresh substrate (peat).
- Irrigate soil with natural water



Important annotations



- It is necessary to keep on using special fertilizers during the following years
- It is important to remember that every irrigation lowers ground pH which must be kept balanced instead.
- It is necessary to do the treatment immediately after the product opening since the **Erycomik^{Prof}** compound has a limited effectiveness (max 6 months). The fertilizer instead has a higher stability.
- **Not suitable for vegetable gardening, ornamental plants and rose bushes**
- It is important to reduce the amount of chemical and synthetic fertilizers (up to 50%) or completely avoid their usage.
- Avoid temperature lower than 5° C
- **Rhodofaser** blend must be kept out of reach of children and must not be stored together with food
- Complete treatments can be repeated in spring in order to keep the concentration balanced (in case of a lack of regression)

Verdefaser

Complete product for the treatment of small green areas, grass mantles, gardens, lawns and flowerbeds (both new and intersowed areas). The elements contained in Verdefaser mixture are specific for grass mantles but only suitable doses can assure best results.

With a complete package can be treated a 30-40 m² ca. green area.

Package content

- * 1kg of organic grosgrain fertilizer Engelhart containing 9% N (Nitrogen), 4% P₂O₅ (phosphates), 5% K₂O (potassium oxide), 2% MgO (magnesium oxide)
- * A 25 gr package containing **Endomyk^{Conc}** a water soluble product produced from endospores and soluble in water (maximum concentration)
- * A 6 gr package containing five different bacteria useful for the soil and water-soluble trichoderma harzianum **Bacto^{Prof}**

Application advice

The complete product is generally applied only one time both on new areas or on areas to thicken.

Little dose of bacteria can be also added to the soil, if this one is poor in nutrients.

Due to an incompatibility with the endospores, it is suggested not apply (neither simultaneously or successively) chemical or synthetic fertilizer or fungicides.

It is also important to reduce the water amount or to extend time intervals between irrigations

When to process the treatment ?

Usually the **Verdefaser** treatment is processed during spring in order to obtain best results. The symbiotic relationship between the endospores and the plant roots starts immediately.

It is not necessary to apply the treatment in a specific time however best results are achieved during waxing moon. Avoid distribution on frozen plots of lands.



Application modality

Pour half of the fertilizer and half of the package content in a 5 lt watering can.

- *It is possible to add seeds to the mixture (use the expected quantities indicated by the factory)*
- *Fill the watering can with water in order to obtain the liquid mixture.*
- *Apply the expected dose on a 30-40 m² green area.*
- *Repeat the treatment with the remaining mixture*
- *Irrigate a second time in order to make the product filter the soil and start symbiosis*

For more information consult our site www.greenfaser.eu

Important annotations

- *Apply the treatment immediately after the opening of the packaging.*
- *In order to preserve the fertilizer it must be well closed.*
- **Verdefaser** *blend must be kept out of reach of children and must not be stored together with food.*
- *Avoid direct solar exposition*
- *Avoid temperature lower than 5° C*
- *It is important to reduce the amount of chemical and synthetic fertilizers (up to 50%) or completely avoid their usage.*
- *It is necessary to do the treatment immediately after the package opening, even if products produced from bacteria and spores have a higher resistance through time (Up to 18 months since the first opening). The fertilizer is perfectly preserved if the container is kept closed*
- *Do not keep stored together products produced from bacteria and spores and fertilizers, in order to avoid a loss of effectiveness*
- *Always keep them separated not only from each other but also from the seeds*
- **Do not apply on ericaceous plants (Azalea, Rhododendron and Erica)**
- **Not suitable for vegetable gardens, plants or rose bushes**



Further information and instruction for use and for maintenance of grass areas

It is important to carefully read the instruction for use before starting **Verdefaser** treatment.

Cut, aeration, fertilization and irrigation

Green, dense and lush: this is how a healthy lawn should appear.

It is very difficult to reach these results without professional help and what we usually have is a brown lawn, covered with moss, full of weed and bare areas.

Shortly: a sad and depressing view.

This can be easily and rapidly avoided by applying a treatment of regeneration and freshness.

During winter time the ground tends to regenerate and gets new energies.

With temperatures higher than 5°C the chlorophyll formation is reinforced and the grass starts to acquire nutrients again and as a consequence the grass get a fresh green colour, because of the new growth.

Now it is required human intervention for lawn and flowerbed.

Rejuvenation therapy

Phase 1: eliminate the dead weight

Do not overthink and eliminate the causes.

In difficult cases it is necessary to rake or scarify the lawn first. In order to allow the lawn to get light and fresh air eliminate remains, mosses and roots. A lime treatment would remove the moss just for a short time.

Phase 2: For starting

*Start spring with an application of Engelhart **Boden attivo** (available also in Italy).*

*Through a high percentage of organic substances, **Boden attivo** stimulates life up to the deepest ground layers.*

***Boden attivo** contains active microorganisms that effectively regenerate seriously compacted lawns.*

The advantage is an improvement of the ground structure, avoiding the formation of condensation and swamps. Moreover the development of mosses and roots are prevented.

The microelements contained in the mixture balance and fill ground deficiency, while acidity values are kept at a level that plants are able to accept. It is also expected a capability of nutrients and water storage.

These are the best requirement for a beautiful and healthy lawn in which mosses and weeds will not find a place.

Phase 3: A little strengthening

Now that presuppositions have been fulfilled, fertilization is required.

Lawn must be organically nourished with main nutrients, nitrogen, phosphates, potassium and magnesium.

Our fertilizer has rapid, valid and lasting effect and starts to act immediately after application. It contains all that a lawn needs.

Nutrients slowly flourish through the high percentage of organic substances, nourishing the ground and providing a healthy development of a heavy green grass lawn.

With our product it will be possible to obtain the formation of a valid root system, without an irregular development of turf, therefore no increase in cuts but a thick, durable and healthy grass lawn.



When to fertilize ?

Usually the turf development starts in March and ends in October. The best fertilization is to apply at the beginning and at the end of the vegetative period.

Lack of nutrients ?

A lot of green surfaces suffer from a lack of nutrients. This symptom is easily recognisable by colouring and a delay in growth. Without developing a beautiful green lawn cannot be obtained. If the ground is poor in nutrients mosses

and weeds (clovers) will spread and the turf will not be solid and durable anymore.

The most important nutrients are nitrogen, phosphates, potassium, iron and little tracks of magnesium.

These nutrients influence the different development processes of the plant and bring positive benefits.



How frequently is necessary to fertilize ?

Nutrients required by turfs vary depending on type, use and quality of the ground; the higher the consumption the higher are the nutrients required.

The first ground therapy is fertilization (March-April).

A summery fertilization is reasonable for play areas and sports fields; fertilization in October helps the turf to pass the winter.

Turfs under trees need at least three fertilization since trees also absorb nutrients from the ground.

How frequently is necessary to mow ?

Expect at least twenty mowings in the vegetative period.

A too heavy cut (typical German habit) should spare some time but actually the opposite result is obtained, since it damage the plant and stop its development.

It is better to set up the lawn mower in an intermediate position and just cut the tips, in this way the ground will be overshadowed and the exsiccation will be avoided

Usual problems with turfs

- *Swamps*
- *Shading and light lack*
- *Grounds with an excessive pH*
- *Lack of humus and nutrients*

A little description of organic fertilizers Engelhart

The expected product blends include the application of Engelhart fertilizers; a German factory (products have been tested) specialized in organic and mineral organic production (methods and fermentation processes).

Production with Fermeto-Mix method for a rapid nutrients availability

Through maturation and fermentation process a lively microorganisms flora grows and regenerates grounds and highly stimulated turfs.

This allows a faster nutrient availability for plants.

Only organic, vegetal raw materials are used: nitrogen, organic phosphates and potassium. Therefore there is no saline or nitrogen overload caused by lye.

The product is completed with amino acids and vitamins for the formation of vegetal fibres and for strengthening of the plant.

No animal leftover (poultry) or epithelial flour.



Who are we ?

Our factory produces special and innovative products for agriculture; in Italy we operate mostly with the help and the assistance of primary agronomy studies and their specialists. For particular necessities we avail our self of the technical and scientific support of a German research Institute and its laboratory by entrust them with all particular cases that need their experimentation. Our products quality is constantly checked by the German Federal Authority (TÜV-Nord).

We are always available for explanations and information in order to obtain the best results.

It is possible to purchase our products in our offices, online or via email with the best price offers (shipping charges must be added to the price).

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*Panoramic photo of Villa Carlotta Park in Tremezzo (CO)
By courtesy of Park Authority*

