GREEN BEAR BIO
BIOLOGICAL EVOLUTION OF ACTIVE RESOURCES

Biorigeneral® TURF

used for

PROFILE OF SPORTS FIELDS TOP SOIL and TOP DRESSING

SIMAS

Biorigeneral® TURF

Organic powder product NPK 2 – 1.7 – 3.5

Biorigeneral®T U R F consists of a pure and natural blend of two selected organic raw materials, namely high-quality organic compost from dairy cattle manure and chicken manure, both composted for a period ranging from 7-8 months to 12-14 months.

The main feature that makes **Biorigeneral® TURF** an excellent product for turf is the guaranteed origin and traceability of the raw materials used.

Biorigeneral® TURF has a high level of biodiversity, containing **812 different species of bacteria and fungi.**

ADVANTAGES

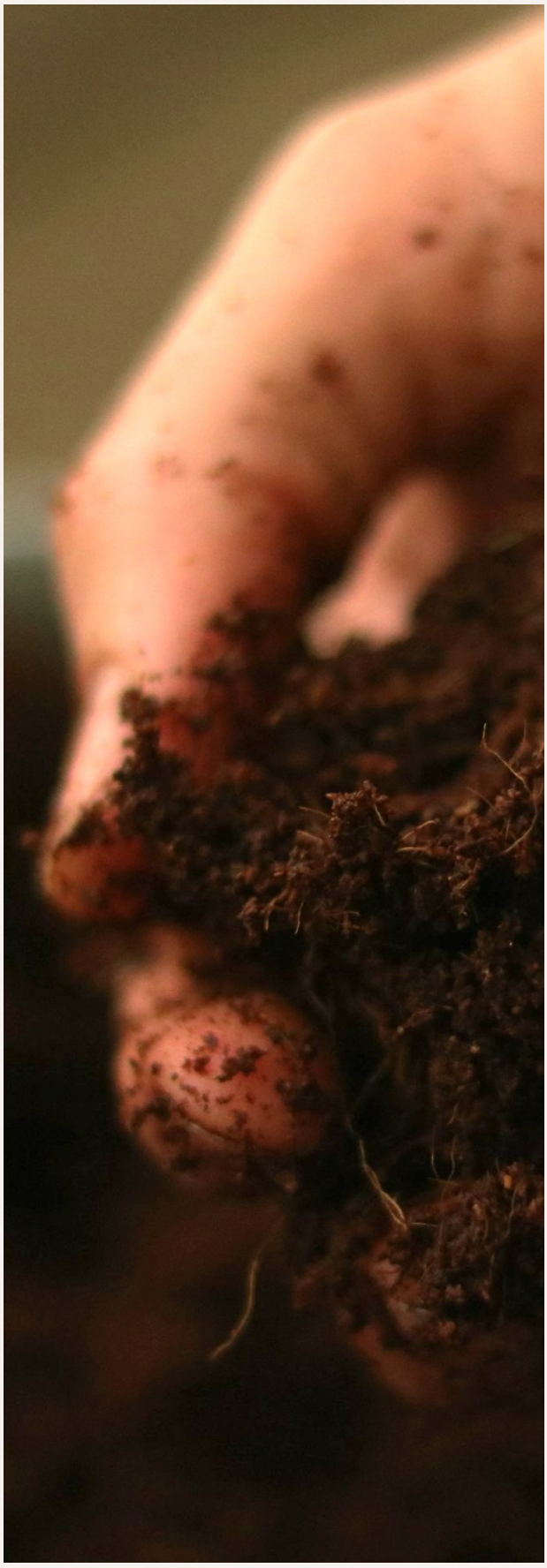
- **Creates an ideal environment for uniform turf growth.**
- **Increases water retention.**
- **Reduces soil compaction.**
- **Provides active microbial flora.**
- **Provides high-quality organic matter**
- **CO_2sequestration.**
- **Increases the effectiveness of chemical fertilizers.**
- **Unlocks nutrients present in the soil.**

SIMAS

GREEN BEAR BIO

Biorigeneral® TURF

RAW MATERIALS & PREPARATION



The material that arrives at the plant immediately begins the composting process inside covered structures. Manure from bedding and poultry manure thus begin the pasteurization process, which takes place at a controlled temperature.

The pasteurization process of the material.

The aerobic decomposition generated in the piles produces a controlled increase in temperature inside them and triggers the process of pasteurization which eliminates pathogenic microbes, seeds, and insect eggs.

The composting process is divided into two phases.

The first phase is decomposition, during which the windrows are turned very frequently and which usually lasts about four months.

The second phase is maturation, during which the product acquires its final degree of stability.

The duration of this last phase is normally 5-7 months, depending on the weather conditions. In this phase, the windrows are turned less frequently than in the previous phases, mainly for the purpose of aerating and oxygenating the product.

The process eliminates any contamination from seeds and pathogens. Products that do not contain a sufficient percentage of straw or that have undergone drying processes (solar) are not included in the composting material.

From an environmental point of view, **the use of Biorigeneral® TURF has numerous positive effects**, such as maintaining biodiversity, ensuring the proper functioning of nutrient cycles, protecting and decontaminating the environment, and contributing to maintaining soil fertility.

All this makes it possible to obtain a high-quality material with very specific characteristics:

- **high concentration of humic extract.**
- **high humic extract/total organic matter ratio.**
- **high cation exchange capacity.**
- **level five in the maturity test, which is the highest level that can be achieved.**

SUPPLY CHAIN CONTROLS

PRODUCT QUALITY CONTROLS

At our company, we are never satisfied, which is why we subject our products to various types of analysis so that we can respond to the growing needs of our customers, the market, and consumers.
To do this, we use external laboratories that are specialized and accredited at national and European level.

THE ANALYSES WE PERFORM AT BIORIGENERAL® TURF ARE:

- **CHEMICAL-PHYSICAL ANALYSIS AND HEAVY METALS**
- **MULTIRESIDUAL OR MERCEOLOGICAL ANALYSIS**
- **PRODUCT MICROBIOME ANALYSIS.**

CHEMICAL-PHYSICAL ANALYSIS

Chemical and physical analysis allows us to detect the basic elements that are then declared on the label, as well as the percentage of heavy metals that must fall within the parameters permitted by law.

Parameters	Unit of measurement	Values
pH (40% aqueous suspension)	pH unit	7.8-8.0
Dry matter at 105°C	%	59. 80
Moisture at 105° C	%	40
Total organic matter	% on dry matter	41
Total organic carbon	% C on dry matter	22
Humic and fulvic carbon	% C on dry matter	7.65
Total nitrogen	% C on dry matter	2
	% N on dry matter	
Organic nitrogen	% N on dry matter	1.60 (equal to 80% of N total)
Potassium soluble in water	% K2O on dry matter	3.50
Total phosphorus	% P2O5 on dry matter	1.75
C/N ratio	------	11. 20
Salinity	dS/m	9.66

Parameters searched	Unit of measurement	Values	Limit values
Cadmium	mg/kg on dry	0.27 <	< 1.5
Total copper	matter mg/kg on dry matter	56 <	< 230
Hexavalent chromium	mg/kg on dry weight	0.10 <	< 0.50
Total lead	mg/kg on dry matter	0.75 <	< 140
Total nickel	mg/kg on dry matter	8.6 <	<
Total zinc Total	mg/kg dry weight	298 <	< 500
mercury	mg/kg dry weight	0.10 <	< 1.5

MULTIRESIDUAL ANALYSIS

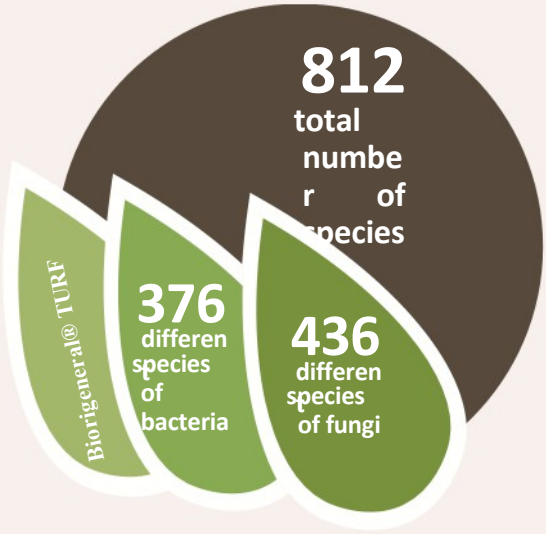
Multi-residue or product analysis is used to verify that the product does not contain active ingredients from plant protection products (approximately 300 active ingredients are tested). This type of analysis is useful for those working in the supply chain and is provided to the customer upon request.

MICROBIOME ANALYSIS

Microbiome analysis of the product is definitely **a brand new development!**

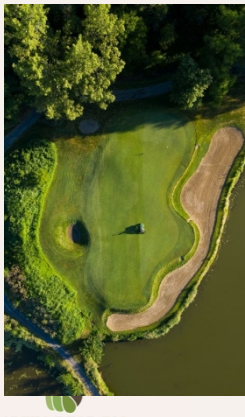
Why do we do it? **Because Groundsmen and Sports Clubs are asking for a more ecological approach, and it is only with this type of analysis that we can obtain the data necessary to understand what we are bringing to our fields in terms of bacteria and fungi.**

CONTENTS OF THE BIORIGENERAL® TURF MICROBIOME



CONTAINS 376 DIFFERENT BACTERIA all mapped through DNA analysis and expressed in number of cells per gram of product. **Some of these contribute to the fixation of atmospheric nitrogen**, while others, such as Baccillus sp and Pseudomonas sp, act on the solubilization of phosphorus and potassium, thus balancing the effects of chemical products.

CONTAINS 436 DIFFERENT SPECIES OF FUNGI including mycorrhizal fungi. Some species present in the product **are able to exercise a sort of bio-control by occupying space at ground level and thus preventing the settlement of other pathogens**, while others, such as Trichoderma, exert a fungicidal function and still others act against insects and nematodes.



SIMAS

GREEN BEAR BIO

Biorigeneral® TURF

Biorigeneral® TURF

DOSAGE AND METHOD OF USE:

The product can be applied manually or mechanically using a fertilizer spreader, either on its own or mixed with aggregates.

PARKS AND GARDENS

Apply Biorigeneral® TURF during construction at a dosage of 3,000/4,000 kg per hectare.

During the covering phase, we recommend using a dosage of 2,000 kg per hectare in spring.

GREENS AND TEES

We recommend using Biorigeneral® TURF during construction at a dose of 3,000/4,000 kg per hectare. During top dressing, use the product mixed with Agrosil LR, silica sand, or zeolite in a percentage ranging from 10% to 30%.

FAIRWAYS

Apply Biorigeneral® TURF during construction at a dose of 3,000/4,000 kg per hectare. During the covering phase, we recommend using a dose of 2,000 kg per hectare in spring.

SPORTS FIELDS

We recommend using Biorigeneral® TURF during construction at a dose of 3,000/4,000 kg per hectare. During top dressing, use the product mixed with Agrosil LR, silica sand, or zeolite in a percentage ranging from 10% to 30%.

BIORIGENERAL® TURF USED ALONE DURING CONSTRUCTION

BIORIGENERAL® TURF USED AS TOP SOIL AND TOP DRESSING

GIMAS S.R.L.

REGISTERED OFFICE

Bolzano Via Della Mostra, 19

ADMINISTRATIVE HEADQUARTERS

Ferrara Via Caselli 13,F Tel:

0532 413284

info@infogimas.com

www.gimasitalia.com