

NOVIHUM®

Agriculture and horticulture

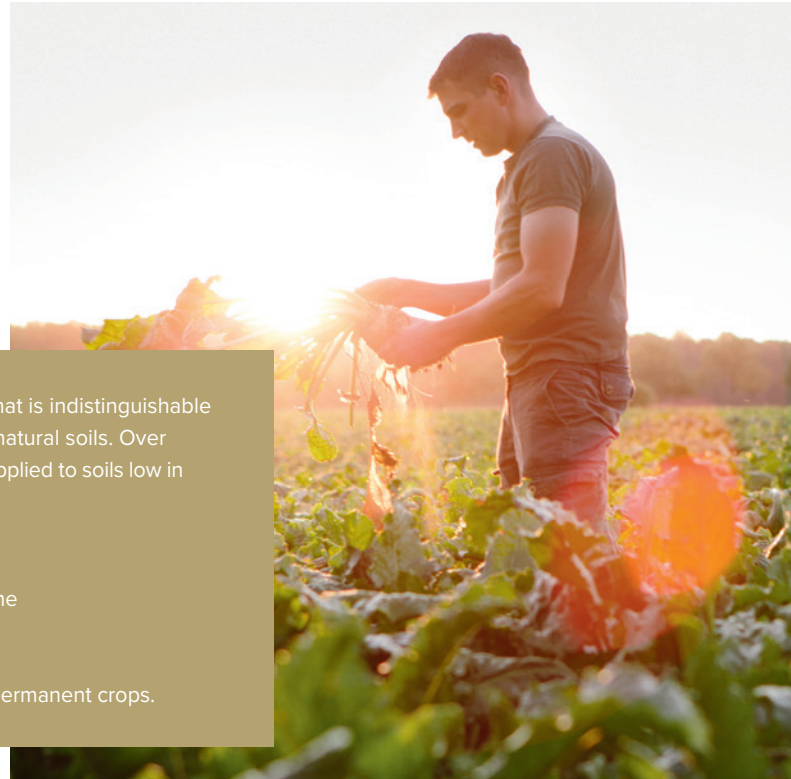
The stable humus concentrate that provides an organic reservoir like those at the heart of the best soils

NOVIHUM® is an innovative manufactured stable humus concentrate that is indistinguishable from the high-grade organic matter reservoir found in very productive natural soils. Over twenty years of R&D show immediate and long-term benefits when it's applied to soils low in organic matter, including:

- Higher crop yields, quality, and resilience to environmental stress
- Enhanced plant root development and water-use-efficiency
- Higher cation exchange capacity and soil carbon level in the root zone
- Accelerated plant growth and maturation

NOVIHUM® is free from bacteria, fungi, salts, odors, and pollutants.

It is suitable for use in diverse climates for a wide range of annual and permanent crops.



Product Origin

NOVIHUM® is produced by chemically modifying lignite (brown coal) to make a stable humus concentrate. Humus is the natural reservoir of high-grade stable organic matter that is the source of soil fertility in naturally productive soils. It plays a critical role in soil function and health, and takes many years to form under natural soil conditions.

Novihum Technologies has developed a chemical process that accelerates nature's work to produce top-quality humus in hours, using coal as a raw material. When coal is formed from decomposing plant material it undergoes chemical and biological processes that are very similar to those by which humus is formed. That makes it a rich source of the molecular building blocks of stable humus. However, over millions of years underground it loses critical elements – most especially nitrogen – and becomes less useful for plants. That is where Novihum Technologies steps in, with a new patented process that restores lignite's lost chemistry, transforming it into a concentrated carbon-rich granulate that is indistinguishable from the organic matter reservoirs found in nature's best soils.

Application

NOVIHUM® is a dry granulate that is incorporated into soils low in organic matter. It may be broadcast or banded during soil preparation, and is homogeneously incorporated into the top 10–30 cm of the soil at rates of 650–1,300 lbs/acre (750–1,500 kg/ha), depending on crop type and application method. As a stable humus granulate, NOVIHUM® is a long-lasting reservoir of carbon- and nitrogen-rich organic matter and is applied every 3–5 years. It is available in two granulate sizes (≤ 2 mm, 2–5 mm) in 25 kg sacks and 500 and 1,000 kg bulk bags.

| Guaranteed analysis | |
|------------------------------|-----------------------------------|
| pH (H ₂ O/KCl) | 7.7 / 7.1 |
| CEC _{pot} | 140 – 180 mmol _c /100g |
| Density | 0.8 kg/l |
| Carbon (C) | 41.4% (FM) / 55.2% (DM) |
| Nitrogen (N) | 3.5% (FM) / 4.7% (DM) |
| Ammoniacal Nitrogen | 1.1% (FM) / 1.5% (DM) |
| Other Water Soluble Nitrogen | 0.4% (FM) / 0.5% (DM) |
| Water Insoluble Nitrogen | 2.0% (FM) / 2.7% (DM) |
| Humic acids* | >24% (FM) / >32% (DM) |
| Fulvic acids** | >2.0% (FM) / >3.0% (DM) |
| Humins** | >18% (FM) / >24% (DM) |
| Ash | 3.8% (FM) / 5.1% (DM) |

Contains trace amounts of S, Fe, Mg and Ca

*Measured according to the California Department of Food and Agriculture (CDFA) methodology

**Measured according to the International Humic Substances Society (IHSS) methodology

FM: Fresh matter basis
DM: Dry matter basis

Registration

NOVIHUM® is registered as an organic-mineral N fertilizer under the German Fertilizer Ordinance.

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