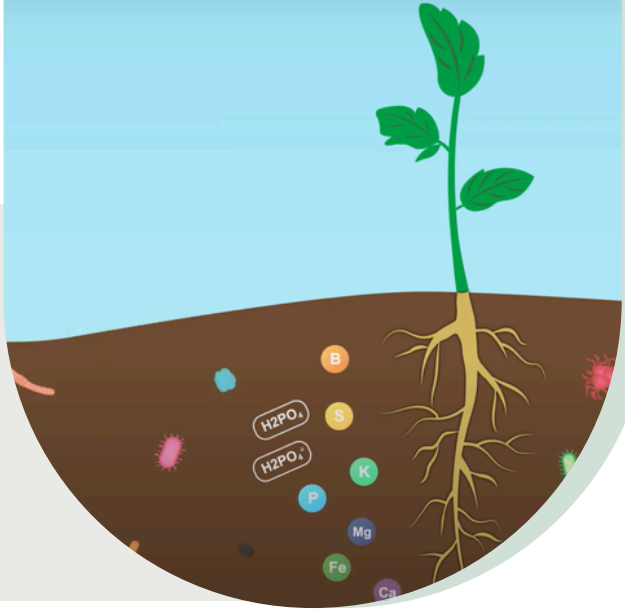
Replenish NUTRIENTS

MICROBIAL ANALYSIS REPORT

HESO 0-9-20-20



The analysis identified 765 microbial species, reflecting a diverse community that supports soil fertility, disease resistance, and plant vigor.

AT A GLANCE

- **765 Microbial Species: Supports a thriving and diverse soil ecosystem.**
- **Fungal & Bacterial Synergy: Improves nutrient availability and soil structure.**
- **Soil Health Enhancement: Encourages strong plant growth and resilience.**
- **Eco-Friendly & Sustainable: Ideal for long-term soil care and healthy landscapes.**

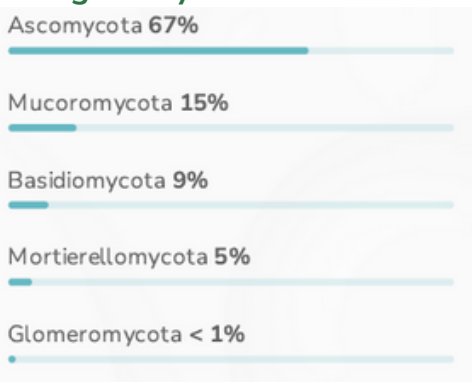
OVERVIEW

The HESO formula's microbial testing results highlight its ability to foster a diverse and active microbial community, with 765 unique species detected. This diversity plays a crucial role in enhancing soil health, promoting efficient nutrient cycling, and supporting vibrant plant growth—offering an effective, sustainable solution for gardeners, landscapers, and farmers alike.

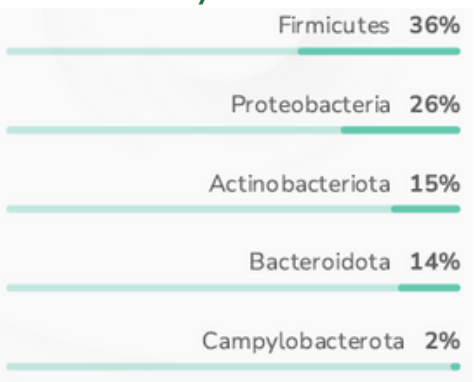
ABOUT

The Biome Makers: BeCrop Test analyzes bacterial and fungal populations using 16S and ITS sequencing. Instead of measuring nutrient levels, it assesses key microbial processes like carbon fixation, nutrient cycling, and mineralization. The results provide functional insights into identifying and categorizing the bacteria and fungi found in the final product at various taxonomic levels, such as phylum, genus, or species.

Fungal Phylum Distribution



Bacterial Phylum Distribution



BECROP BY BIOME MAKERS TEST

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MICROBIAL COMPOSITION RESULTS

HESO 0-9-20-20

FUNGAL PHYLUM DISCUSSION

- **Ascomycota (67%)**: This fungal group is crucial for breaking down organic matter and driving nutrient cycling. It includes saprophytic fungi and endophytes that strengthen plant defences.
- **Mucoromycota (15%)**: Aids in decomposing organic material and improves soil aggregation, enhancing soil structure.
- **Basidiomycota (9%)**: Specializes in breaking down tough plant components like lignin, boosting organic matter turnover and overall soil fertility.
- **Mortierellomycota (5%)**: Often found near plant roots, these fungi promote nutrient uptake and help protect plants from disease.
- **Glomeromycota (<1%)**: Known for forming beneficial relationships with plant roots, aiding in nutrient exchange and soil health.

BACTERIAL PHYLUM DISCUSSION

- **Firmicutes (36%)**: A key bacterial group responsible for breaking down organic matter, producing enzymes, and helping suppress harmful plant pathogens.
- **Proteobacteria (26%)**: Known for their metabolic versatility, these bacteria play a vital role in nitrogen cycling, improving soil fertility.
- **Actinobacteriota (15%)**: Decompose complex organic compounds and produce natural antibiotics that protect plants from disease.
- **Bacteroidota (14%)**: Contribute to nitrogen and phosphorus cycling, enhancing soil organic matter and fertility.
- **Campylobacterota (2%)**: Though less abundant, these bacteria are part of healthy soil ecosystems and may impact nitrogen transformations.

SO WHAT?

The HESO formula enhances soil biodiversity, promoting nutrient cycling and healthier plant growth. Its balanced microbial profile improves soil structure, fertility, and disease resistance—making it a sustainable solution for vibrant gardens and long-term soil health.