

SOIL BIOLOGY REPORT BACTERIA, FUNGI, NEMATODES & MORE

PREPARED FOR: SAMPLE WORM FARM

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METHODOLOGY

Sample: Vermicompost

Received: Jan 19, 2022 **Analyzed:** Jan 20, 2022 **Intended Crop:** NA

All samples are diluted in distilled water for a proper analysis of the biology present. The analysis includes a full count of observed bacteria, actinobacteria, fungi, oomycetes, amoebae, flagellates, ciliates, and all feeding groups of nematodes. For this count amoebae and flagellates are grouped together as their functions are identical. All samples are viewed at 400X magnification.

All organisms except nematodes and ciliates are measured in micrograms per gram which is noted as "MG/G" in this form.



RESULTS Bacteria

SAMPLE: 2283 MG/G DESIRED RANGE:>300MG/G

Bacteria contain nutrients, especially nitrogen, that are released upon consumption or expiration.

ACTINOBACTERIA

SAMPLE: 00 DESIRED RANGE: <100 MG/G

Actinobacteria consume and decompose tough cellulose and lignon. Responsible for the "earthy" aroma of a forest.

FUNGI

SAMPLE: 4651 MG/G DESIRED RANGE: >300MG/G

Saprophytic fungi break down woody tissues such as stalks, sticks, and leaves. The desired ratio will depend upon plants grown.

F/B RATIO

SAMPLE: 2.04 DESIRED RANGE: 0:1-2

Early successional plants such as lettuces, greens, and short-lived annuals grow in bacterial dominant soils. Row crops, tall grasses, and annuals with longer life spans grow best in soils with equal F/B ratios. Woody vines, shrubs, and trees grow best in fungal dominant soils.









RESULTS Domycetes

SAMPLE: 0 DESIRED RANGE: 00

Oomycetes are generally pathogenic.

FLAGELLATES/ Amoebae

SAMPLE: 1,080,140 MG/G DESIRED RANGE: 407,600-611,400 MG/G

Both flagellates and amoebae consume bacteria, releasing nutrients in a plantavailable form

CILIATES

SAMPLE: 0 DESIRED RANGE: <16,000

The presence of ciliates is an indication of low oxygen or anaerobic conditions.

NEMATODES

SAMPLE: 2 BF & 1 PRED DESIRED RANGE: ALL PLANTS: >1BF MID-LATE SUCCESSSION: >1 FF & >1 PRED

Nematodes are separated by feeding groups: bacterial-feeders, fungal-feeders, predatory, omnivorous, and root-feeders (parasitic). They cycle nutrients in the soil through the consumption of their predators.

BF=Bacterial Feeder FF=Fungal Feeder RF=Root Feeder



NOTES & Recommendations

This sample is fungal dominant with a high number of amoeba. The two bacterial-feeding nematodes along with the high count of amoeba indicates that there is a lot of nutrient-cycling happening. Predatory nematodes will help to keep other nematode populations in check as well as consuming protozoa. This will cycle an even greater amount of nutrients in the soil. This vermicompost would make an excellent inoculant for soils or liquid applications (teas/ extracts).

Thank you for your order! Troy Hinke, Urban Worm Company troy@urbanwormcompany.com