

Soil Biology Report Performed By:

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Client:

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Date Observed: 08-18-2025

Sample Name: Compost sifted 1/2"

Sample Type: Compost

Plants Present/Desired:

Plant Succession: Shrubs, Bushes, Vines

Beneficial Microorganisms

	Recommended Range		Sample Results	
Fungi (ug/g)	270	6,750	2,270	Good: The fungal biomass is within the recommended range for your plant's stage in succession.
Standard Deviation			948	Distribution of the target organisms was patchy, greater variability than desired.
Bacteria (ug/g)	135	1,350	506	Good: The bacterial biomass is within the recommended range for your plant's stage in succession.
Standard Deviation			54	Distribution of the target organisms in the sample was uniform; variation was small.
Actinobacteria (ug/g)	1	4	7.91	Too high for plants that need mycorrhizal colonization. Please contact your Soil Biology Consultant.
Standard Deviation			4.26	Target organisms were present in the sample, but extremely patchy in distribution. Precision is poor.
F:B Ratio	2:1	5:1	4.42	The F:B ratio is within the desired range for your plant's succession. Great!

	Minimum Value		
Protozoa (Total)	> 50,000	1,268,341	Good: The number of beneficial protozoa is above the minimum requirement.
Standard Deviation		393,742	Distribution of organisms was somewhat uneven, resulting in an acceptable degree of variation.
Flagellate (#/g)	(See Total)	0	
Standard Deviation		0	
Amoebae (#/g)	(See Total)	1,268,341	
Standard Deviation		393,742	

Nematodes

Bacterial-feeding (#/g)	300	190	Low: Bacterial-feeding nematodes help keep bacterial populations in balance and enhance nutrient cycling.
Fungal-feeding (#/g)	200	0	None detected: Fungal-feeding nematodes help to release nutrients from fungal hyphae to the plants.
Predatory (#/g)	100	0	None detected: Predatory nematodes help reduce root-feeding nematode numbers.

Detrimental Microorganisms

Disease-Causing Fungi	Maximum Value	Sample Results	
Oomycetes (ug/g)	0	0	None detected: No disease-causing fungi were observed in the sample. Great!
Standard Deviation		0	Distribution of the target organisms in the sample was uniform; variation was small.

Anaerobic Protozoa

Ciliate (#/g)	0	0	None detected: No ciliates were observed in the sample. Aerobic conditions prevail. Great!
Standard Deviation		0	Distribution of the target organisms in the sample was uniform; variation was small.

Nematode

Root-feeding (#/g)	0	0	None detected: No root-feeding nematodes were observed. Great!
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Additional Comments: pH Level average from probe; strip and La Motte Testing: 6.75

Soluble NPK reading from probe and La Motte Testing:

–Nitrogen: 15 mg/ kg Low level

–Phosphorous: 21 mg/ kg Medium level

–Potassium: 43 mg/ kg Low level

Salt / EC/ TDS tests to monitor additives in compost:

–Salt level: 88ppm @ 26.3 C - well below level of concern

– EC: 118 micrometers per cm @ 26.3C well below level of concern

- TDS: 62ppm @ 26.3 C well below level of concern

The following summary below are identifications and interpretations of bio indicators observed during the test:

Substantial organic matter identified to house and feed microbial life

Humic and fulvic aggregates identified indicating active microbial life present in the soil

Silicates identified indicating minerals present in the soil for overall health function for plants and microbial life

Sharp Shaped Dark Brown matter being moved manipulated by bacteria ??

BACTERIA:

-- 12+ or - various morphological shapes indicating highly diverse bacteria biome for healthy crops

-- Motile bacteria identified indicatng symbiotic expressions (colonization) on plant roots for overall health for crops

-- Lacto bacillus identified indicating endophytic activity for healthy plants to absorb nutrients from the soil

-- Expressions of Streptomyces identified indicating nutrient absorption from soil to plants such as phosphorous as well producing phytohormones to protect plants from abiotic stresses; Although streptomyces is not counted or measured on the data report , it is a Plant Growth Promoting Microbe to be noted

-- Cyanobacteria identified: indicating nitrogen fixation from the air for plant growth; promoting healthy soil structure and water retention as well as producing phytohormones for healthy plants; although Cyanobacteria is not coiunted or measured on the data report it is a plant growth promoting microbe to be noted

FUNGI:

-- Basidiomycetes identified indicating the breakdown of organic matter to feed microbes and improve soil structure as well as provide nutrients for plants through decomposition

--- Yeasts identified indicating endophytic activity for plants to absorb nutrients from the soil; Although yeasts are not counted or measured for the data report they are a Plant Growth Promoting microbe to be noted

-- Ascomycota and Basidiomycota Spores identified

-- Germinating spores identified indicating active fungi

Protozoa:

-- Amoebae identified indicating active nutreint cycling for healthy plants and healthy soil structure for plants

-- Testate Amoebae identified indicating nutrient cycling for healthy plants and builder of good soil structure for healthy plants;

Testate Amoebae can withstand temperature and moisture fluctuations in the soil and therefore is considered the more "hardier" protozoa type

-- Arcella Amoebae identified indicating a highly diverse protozoa biome

-- Flagellate identified indicating nutreint cycling and a builder of good soil structure as well as indiciating a good amount of moisture in the compost

Nematodes

-- Bacteria feeding nematode identified indicating high diversity in the compost to enhance nutrient cycling and building good, healthy soil structure as well as regulating bacteria populations for a well balanced fungal to bacteria ratio

Microarthropod identified to indicate highly diverse biome within the compost and progress another stage of building soil structure and nutrient cycling for healthy plants