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Date received: 1/1/2021
Date completed: 1/1/2021

Sample Name: Forest 1
Sample Type: Soil
Plants Present/Desired: Oak

Beneficial Biology	Target Range	Sample Results	<< *Standard Deviation done. Values by request only.
Total Bacteria (µg/g)	150 - 1,000	1,730	High: The bacterial biomass is above the recommended range. Needs to be reduced.
Active Bacteria (µg/g)	> 1.5	10	Okay: The results were within range but very high compared to fungi activity. Reducing bacteria is recommended.
Actinobacteria (µg/g)	0 - 1	0.8	Good: The actinobacteria is within range for healthy soils with your types of plants.

Were any anaerobic indicating bacteria observed in the sample?

Yes

Were any pathogenic bacteria observed in the sample?

No

Total Fungi (µg/g)	600 - 10,000	2650	Good: The fungal biomass observed met the minimum of the recommended range for your types of plants.
Active Fungi (µg/g)	> 7.5	3	Low: The actinobacteria is lower than what is normally found in healthy soils with similar plants.

Biomass Ratios

F:B Ratio	5:1 – 100:1	1.53	High: The bacterial biomass needs to be reduced so that the F:B ratio will be closer to the desired range for your type of plants.
AF:AB Ratio	5:1 – 100:1	0.31	Bacteria dominant: The bacterial biomass needs to be reduced so that the activity will be closer to the desired range for your type of plants.

Protozoa (Total)

Total (#/g)	10,000 – 50,000	48,900	Good: The beneficial protozoa numbers observed met the minimum requirements for your types of plants.
Flagellate (#/g)	(See Total)	16,300	
Amoebae (#/g)	(See Total)	32,600	

Beneficial nematodes

Bacterial-feeding (#/g)	200	200	Good: Minimum numbers met.
Fungal-feeding (#/g)	20	0	None detected: Fungal-feeding nematodes help to release nutrients from fungal hyphae to the plants. Need to replenish.
Predatory (#/g)	4	0	None detected: Predatory nematodes keep parasitic nematodes in check.

Detrimental Microorganisms

Disease-Causing Fungi

Oomycetes (µg/g)	0	0	None detected. No disease-causing fungi were observed in the sample. Great!
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Anaerobic Protozoa

Ciliate (#/g)	0	16,300	A few ciliates indicate that this material is becoming anaerobic. A healthy Soil Foodweb needs aerobic conditions.
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Nematode

Root-feeding (#/g)	0	0	High: These types of nematodes will attack your roots and kill your plants. Needs to be eliminated.
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N and C potential

	Low	High	
N available through microbial predator (lb/acre)	6.30	10.43	Value represents the processing ability of the foodweb microbes to convert nitrogen into plant available form over a 90day season.
Soil Carbon sequestered in microbial (lb/acre)	151.31	250.43	

Miscellaneous testing

	Target Range	Sample Results	
pH	6.5-7.0	6.5	Within normal range.
Electrical conductivity (ms/cm)	0.4 <	0.14	Within normal range.
Mycorrhizal colonization (%)	> 40%	85	High colonization. Great!
Ecoli colonization (MPN/4 g)	3 <	0	Within normal range.
Fecal coliform (MPN/g)	1,000 <	11	Within normal range.

General Observations

Compost colour:	Brown Cocoa	Good. High availability of organic compounds such as fulvics and humates available for the soil food web.
Particles size:	Granular	Individual particles of sand, silt and clay grouped together in small, nearly spherical grains. Water circulates very easily through such soils.
Odors :	Good old forest	Old forest odors. It Indicate excellent drainage conditions and high content of organic matter.

Nematode Extract Analysis

	Sample Results
Total Nematodes (#/25g)	14167
Total Nematodes (#/g)	567
Beneficial Nematodes	
Bacterial Feeders (#/25g)	5000
(#/g)	200
Fungal Feeders (#/25g)	1667
(#/g)	67
Predators (#/25g)	1667
(#/g)	67
Facultative Nematodes	
Switchers (#/25g)	5833
(#/g)	233
Detrimental Nematodes	
Root Feeders (#/25g)	0
(#/g)	0