

**Soil Biology Report Performed By:**

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 Date Observed: 09-16-2024

**Sample Name: Soil Inoculant Batch50****Sample Type: Compost****Plants Present/Desired:****Plant Succession: Vegetables, Early Successional Grasses****Beneficial Microorganisms**

	Recommended Range	Sample Results	
Fungi (ug/g)	68      225	812 **	The fungal biomass is greater than the recommended maximum level.
Standard Deviation		257	Distribution of organisms was somewhat uneven, resulting in an acceptable degree of variation. <b>**fungal spores are not counted in the analysis.</b>
Bacteria (ug/g)	135      450	5,580	The bacterial biomass is significantly greater than the maximum recommended level.
Standard Deviation		892	Distribution of the target organisms in the sample was uniform; variation was small.
Actinobacteria (ug/g)	10      16	4.22	Low: The actinobacterial biomass is below the expected range. This is not a problem.
Standard Deviation		4.44	Few target organism were present and variability was very high. Precision is very low.
F:B Ratio	0.4:1      0.6:1	0.15 **	The F:B ratio is low. Increase fungal biomass or reduce bacterial biomass, and check predators to assess balance. <b>**please see contrasting information below.</b>

**Minimum Value**

Protozoa (Total)	> 10,000	794,820	Good: The number of beneficial protozoa is above the minimum requirement.
Standard Deviation		511,534	Target organisms were present in the sample, but extremely patchy in distribution. Precision is poor.
Flagellate (#/g)	(See Total)	61,140	
Standard Deviation		136,713	
Amoebae (#/g)	(See Total)	733,680	
Standard Deviation		555,332	

**Nematodes**

Bacterial-feeding (#/g)	200	0	None detected: Bacterial-feeding nematodes help keep bacterial populations in balance and enhance nutrient cycling.
Fungal-feeding (#/g)	0	0	None detected: Fungal-feeding nematodes help to release nutrients from fungal hyphae to the plants.
Predatory (#/g)	0	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
Standard Deviation		0
None detected: <u>No disease-causing fungi were observed in the sample. Great!</u>		
Distribution of the target organisms in the sample was uniform; variation was small.		

### Anaerobic Protozoa

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

### Nematode

Root-feeding (#/g)	0	0
None detected: <u>No root-feeding nematodes were observed. Great!</u>		

### Additional Comments:

The sample had a very dark crumbly consistency, moist to touch and had a good earth based smell.

The was a lot of spores seen in the sample on pretty much each field of view.

There was a good count of fungus in the sample.

There was quite a few bacteria in the sample.

There was little actinobacteria

The fungal to bacteria ratio was low due to the high number of bacteria.

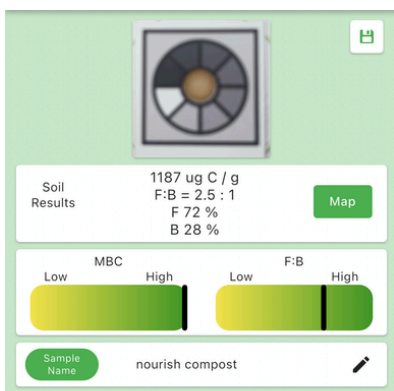
There was good number of Protozoa in the sample, increasing the protozoa would help to reduce the bacteria count.

There were no Nematodes found. If you are using spent mushroom blocks this can reduce and even eliminate nematodes.

There was no Detrimental Microorganisms found in the sample.

I carried out a MicroBiometer assessment also and the findings are different due to the very different nature to the testing protocols and it should be viewed in context. Please see picture below.

Overall this sample was excellent! The fungal to bacteria ratio can be easily addressed with the inclusion of more Protozoa through the introduction of a lucerne or lucerne tea into the compost pile even at the late stages of development.



Microbiometer results (F:B ratio = 2.5:1) contrast greatly with analysis above (F:B ratio = 0.15:1). This may be explained by fungal spores being excluded from microscope analysis. As noted in the report, fungal spores were seen in almost every single field of view during analysis.