

# Soil Biology Lab Report

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**Client:** Burt Mann

**Desired:** Blueberry - Shrubs, Bushes, Vines

**Sample:** Example

**Type:** Compost

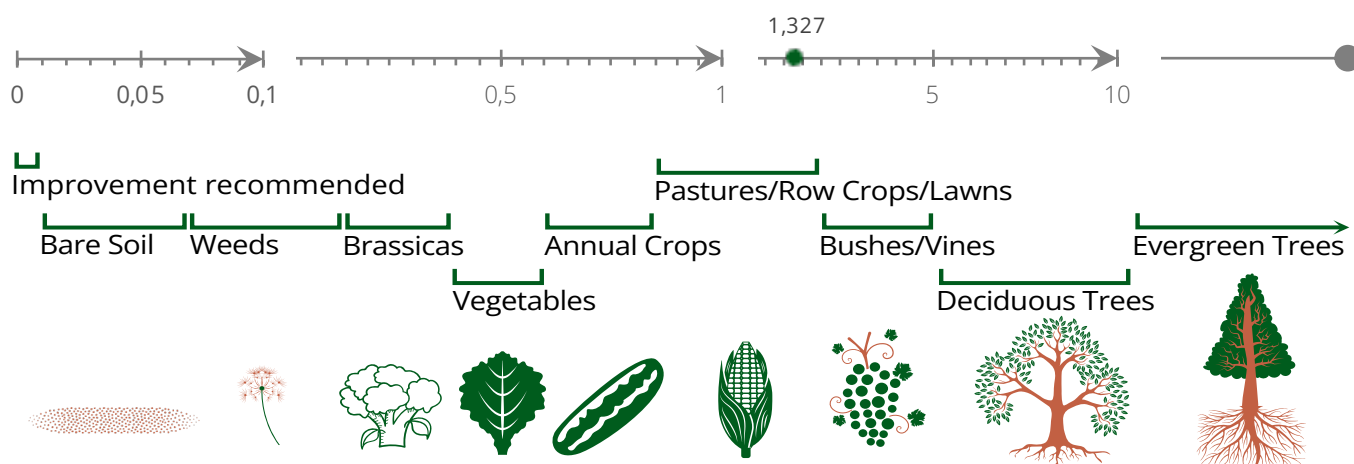
**Collected:** 08-29-2020

**Observed:** 08-30-2020

**Observed by:** Dusty Eddy

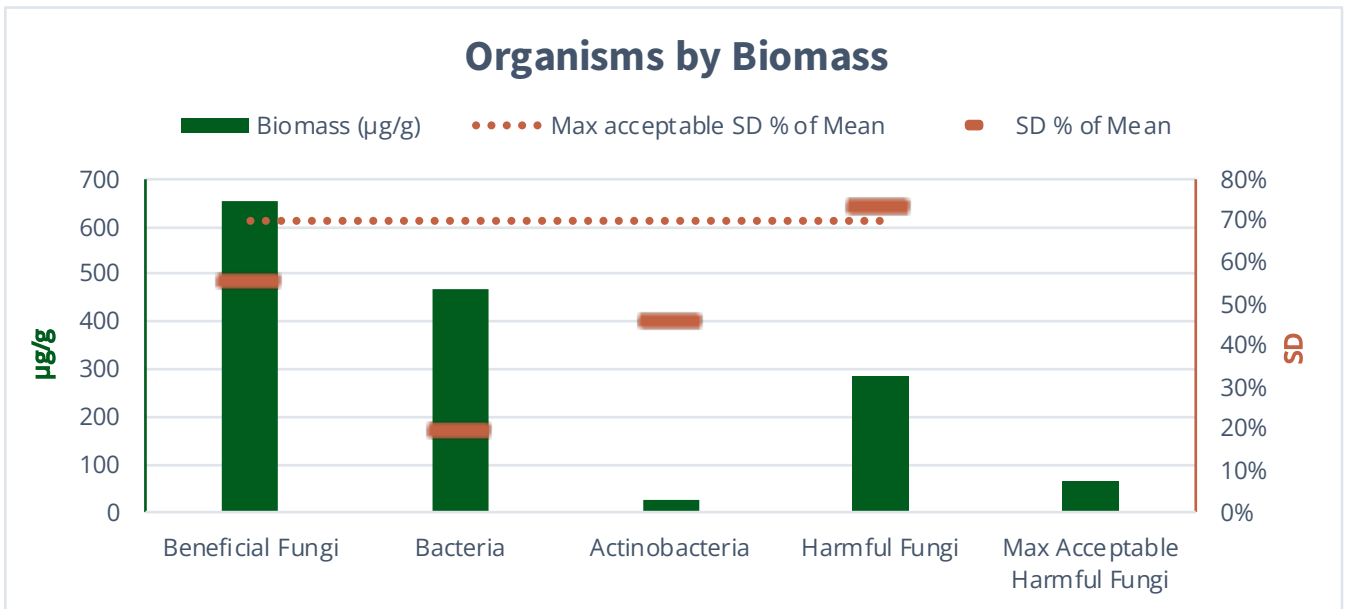
**Summary:** Fungal:bacterial ratio is almost high enough for the target plant. However, the general balance of organisms tends towards anaerobic conditions. Strong populations of protozoa and nematodes show great potential in this material when it is aerobic.

F:B Ratio - 1,327

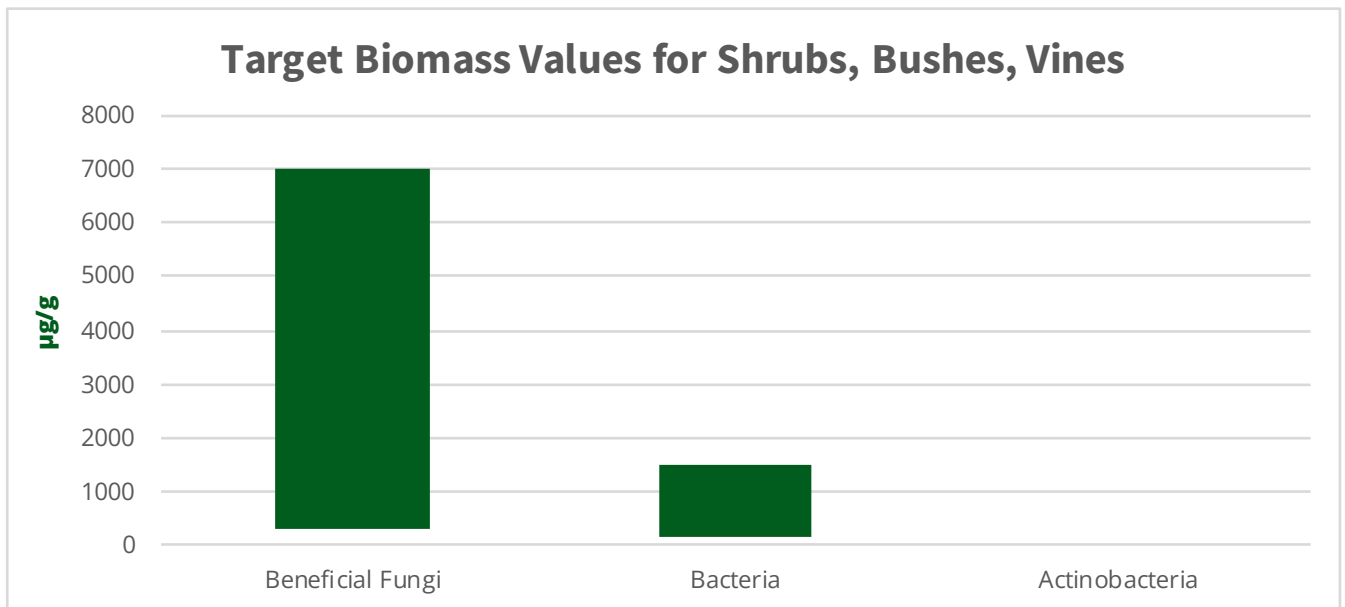


Organism	SD % of Mean*	Totals	Goals
Fungi	55,32%	654 µg/g	~3510 µg/g
<b>Oomycetes (Harmful Fungi)</b>	72,95%	<b>286 µg/g</b>	<65 µg/g
Bacteria	19,13%	468 µg/g	~743 µg/g
Actinobacteria	45,80%	25 µg/g	~0 µg/g
Protozoa:	-	358688 n/g (F+A)	~60000 num/g
Flagellates	104,58%	179344 num/g	^
Amoebae	104,58%	179344 num/g	^
<b>Ciliates</b>	34,23%	<b>358688 num/g</b>	~0 num/g
Nematodes:	-	660 n/g (B+F+P)	> 100 num/ml
Bacterial-feeding	-	440 num/g	^
Fungal-feeding	-	220 num/g	^
Predatory	-	0 num/g	^
Root-feeding	-	0 num/g	< 1 num/g
Microarthropods	-	0 num/g	> 1 num/g

\* These anaerobic organisms tend to be harmful to plant health in these amounts.



\*Note that the µg/g axis scale is likely to change from measured to target value graphs!



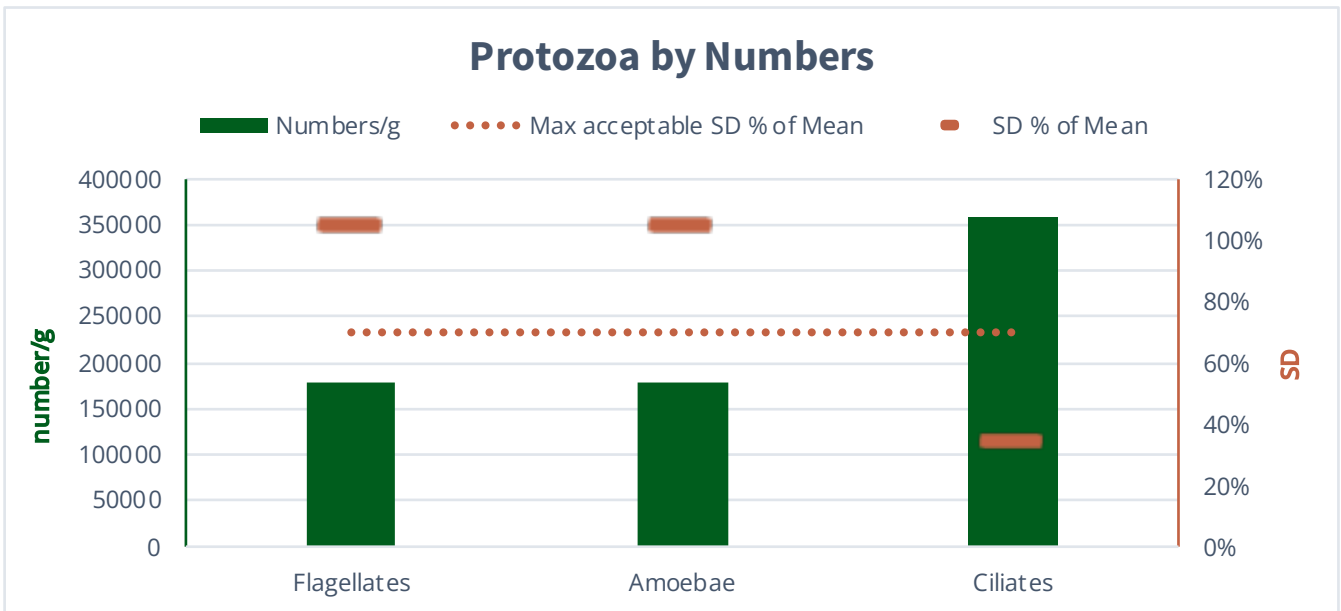
#### Sited Aerobic Bacteria (Morphological Categories)

- Cocci
- Bacillus
- Cocccobacillus

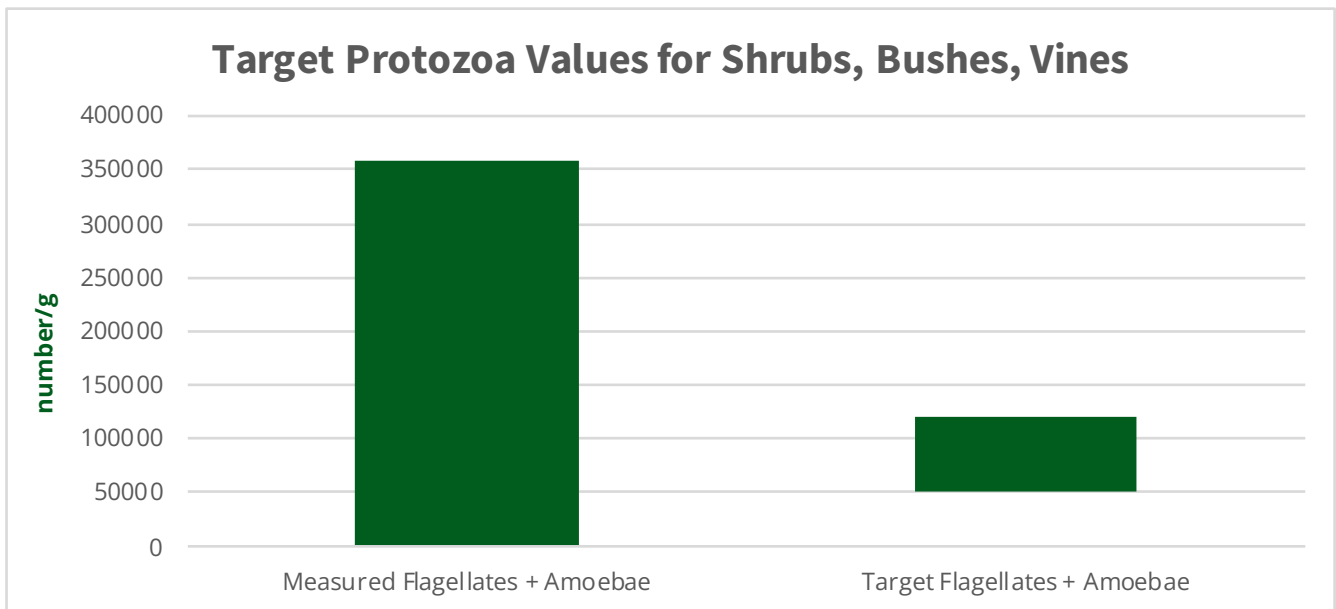
#### Sited Anaerobic Bacteria (Morphological Categories)

- Lactobacillus

#### Sited Pathogenic Bacteria (Morphological Categories)

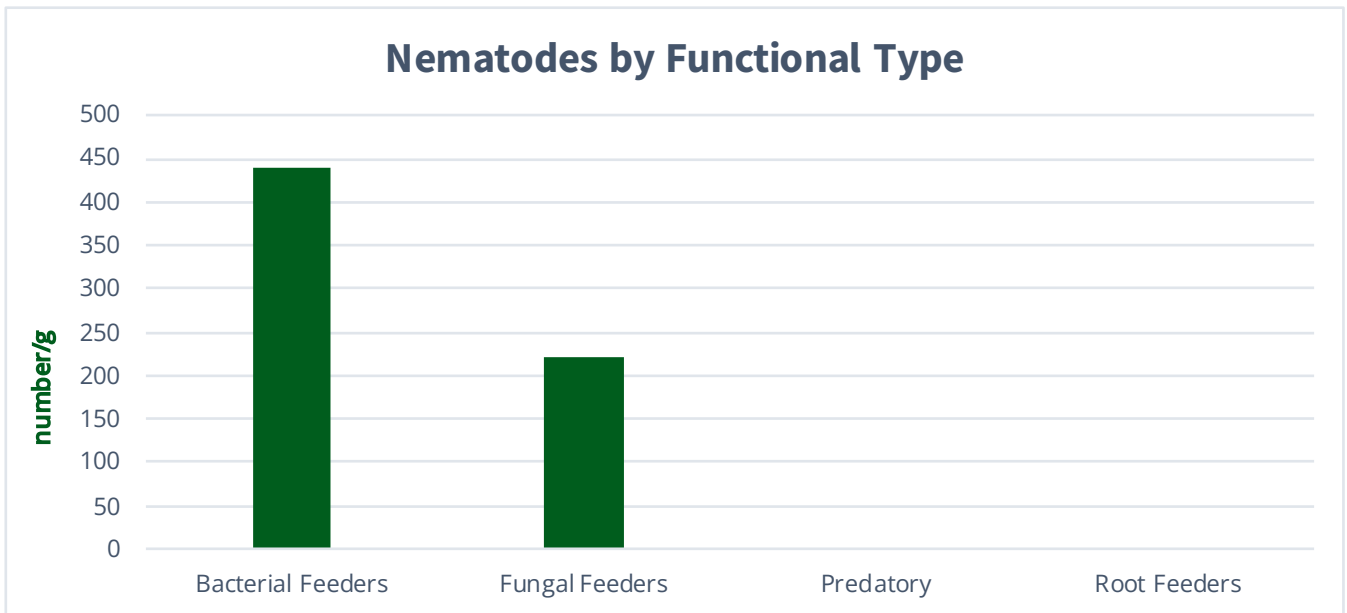


\*Note that the number/g axis scale is likely to change from measured to target value graphs!

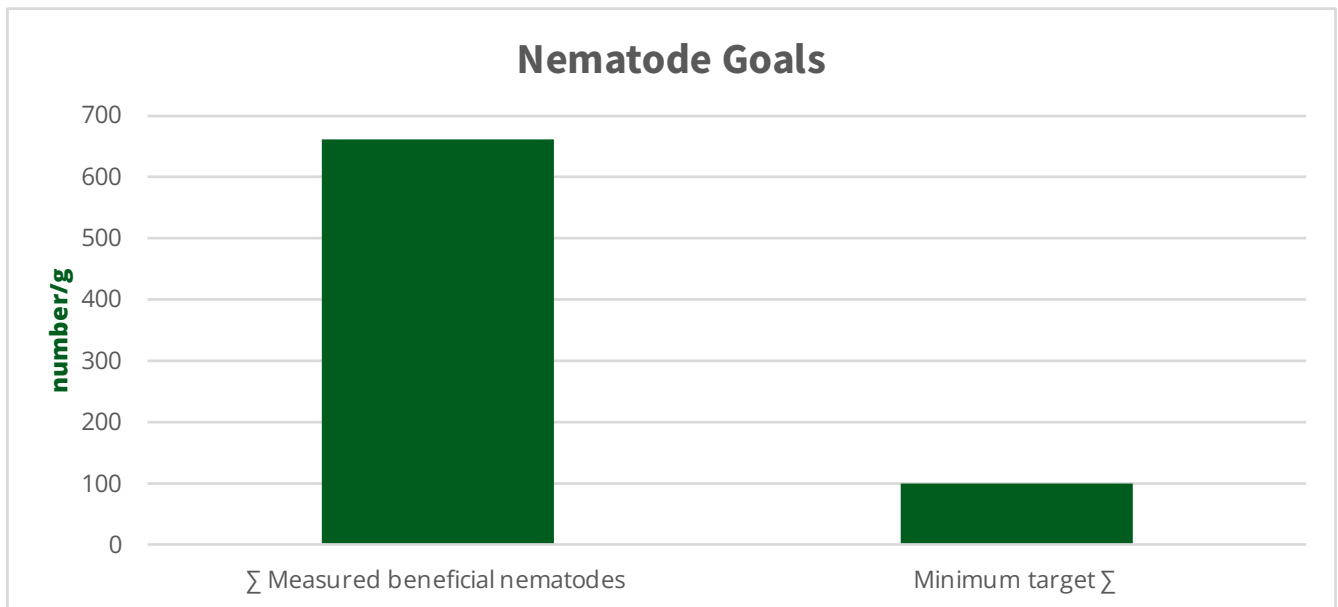


An amount of beneficial protozoa that greatly exceeds the target level is not necessarily a negative factor, especially if bacterial populations are not below their target range.

Ciliate numbers above 240000 /g indicate conditions going anaerobic, especially in combination with smaller numbers of flagellates and amoebae.



\*Note that the number/g axis scale is likely to change from measured to target value graphs!



Bacterial-feeding, fungal-feeding, and predatory nematodes are all beneficial nutrient cyclers.

Root-feeding nematodes should be kept to a minimum. While one per root system can boost productivity, one per gram of substrate will already likely be an issue.