

**Supplementary Table S1.** Differences in bacterial and archaeal (*Candidatus Nitrososphaera*) taxa between treatments compared to untreated controls based on ANOVA comparisons of relative abundance. Taxa that were distinctive at the  $P < 0.05$  level between food waste compost and controls are indicated by x. Differences from controls with the addition of dairy manure compost are indicated by \* and differences from nitrogen treatments by #. The symbols + and - indicate whether taxa increased or decreased with the treatment compared to controls. Taxa are listed in order of most abundant to least abundant in the dataset.

Genus	Phylum	Jul 2016	Oct 2016	Jul 2017	Oct 2017
<i>Rubrobacter</i>	Actinobacteria	x -			
<i>Microvirga</i>	Proteobacteria				
<i>Candidatus_Nitrososphaera</i>	Thaumarchaeota				
<i>Pseudarthrobacter</i>	Actinobacteria		x -		
<i>Bacillus</i>	Firmicutes				
RB-41	Acidobacteria			* -	#-
<i>Solirubrobacter</i>	Actinobacteria	x -			
<i>Sphingomonas</i>	Proteobacteria				
<i>Lysinibacillus</i>	Firmicutes	x +			
MND1	Proteobacteria				
<i>Steroidobacter</i>	Proteobacteria				
<i>Streptomyces</i>	Actinobacteria				
<i>Blastococcus</i>	Actinobacteria				
<i>Bryobacter</i>	Acidobacteria				
<i>Nitrospira</i>	Nitrospirae				
<i>Gaiella</i>	Actinobacteria				
<i>Paenibacillus</i>	Firmicutes				
<i>Psychroglaciacola</i>	Proteobacteria		x -		
<i>Nocardioides</i>	Actinobacteria				
<i>Adhaeribacter</i>	Bacteroidetes		x -		

**Supplementary Table S2.** Differences in bacterial and archaeal (*Candidatus Nitrososphaera*) taxa between other treatments compared to the fertilizer treatment, based on ANOVA comparisons of relative abundance. Taxa that were distinctive at the  $P < 0.05$  level between food waste compost and fertilizer are indicated by x. Differences from fertilizer with the addition of dairy manure compost are indicated by \* and differences from control treatments by #. The symbols + and - indicate whether taxa increased or decreased with the treatment compared to the fertilizer treatment. Taxa are listed in order of most abundant to least abundant in the dataset.

Genus	Phylum	Jul 2016	Oct 2016	Jul 2017	Oct 2017
<i>Rubrobacter</i>	Actinobacteria		x -		
<i>Microvirga</i>	Proteobacteria				
<i>Candidatus_Nitrososphaera</i>	Thaumarchaeota				
<i>Pseudarthrobacter</i>	Actinobacteria	* - x -			
<i>Bacillus</i>	Firmicutes				
<i>RB-41</i>	Acidobacteria				
<i>Solirubrobacter</i>	Actinobacteria		x -		
<i>Sphingomonas</i>	Proteobacteria				
<i>Lysinibacillus</i>	Firmicutes	x +			
<i>MND1</i>	Proteobacteria				* +
<i>Steroidobacter</i>	Proteobacteria				* + x +
<i>Streptomyces</i>	Actinobacteria				
<i>Blastococcus</i>	Actinobacteria		x -		
<i>Bryobacter</i>	Acidobacteria				
<i>Nitrospira</i>	Nitrospirae				
<i>Gaiella</i>	Actinobacteria				
<i>Paenibacillus</i>	Firmicutes		* -		
<i>Psychroglacielcola</i>	Proteobacteria				
<i>Nocardioides</i>	Actinobacteria				
<i>Adhaeribacter</i>	Bacteroidetes				