



Fig S1 Rarefaction analysis at 3% dissimilarity levels for soil samples collected from BOF (banana continuously cropped for two years with common organic fertilizer applied); POF (banana planted after Pineapple rotation with common organic fertilizer applied in banana season) and PBIO (banana planted after Pineapple rotation treatment with Bio-organic fertilizer applied) treatments.

Table S1 Physical-chemical properties of soil from different treatments

Treatments	pH	NH ₄ ⁺ -N (mg/kg)	NO ₃ ⁻ -N (mg/kg)	TK (g/kg)	AK (mg/kg)	TP (g/kg)	AP (mg/kg)
BOF	5.11±0.13b	6.19±1.23a	8.67±2.57a	0.70±0.29b	137.22±71.5b	1.41±0.37a	75.55±7.0a
PBIO	5.83±0.14a	4.98±0.65b	7.35±0.84a	1.46±0.08a	295±14.39a	0.93±0.18a	74.44±3.28a
POF	5.33±0.15b	4.68±0.53b	9.25±1.46a	1.36±0.07a	306.11±72.27a	1.14±0.2a	75.67±6.41a

Note: BOF=Banana continuously cropped for two years with common organic fertilizer applied, POF= Banana planted after Pineapple rotation with common organic fertilizer applied in banana season; PBIO=Banana planted after Pineapple rotation treatment with Bio-organic fertilizer applied. Values represent the average index across the nine replicate

libraries for soil samples collected from each treatment. Means followed by the same letter for a given factor are not significantly different ($P < 0.05$; Duncan test).

Table S2 Fungal Phyla which significantly related to relative abundance of FOC

	<i>Ascomycota</i>	<i>Fungi_unidentified</i>	<i>unclassified_Fungi</i>
R^2	0.184	0.277	0.265
p	0.026	0.005	0.006

Table S3 Bacterial Phyla which significantly related to relative abundance of FOC

	<i>Proteobacteria</i>	<i>Actinobacteria</i>	<i>Verrucomicrobia</i>	<i>Planctomycetes</i>	<i>CandidatusSaccharibacteria</i>	<i>Nitrospirae</i>	<i>Chlamydiae</i>	<i>Gemmatimonadetes</i>
R^2	0.421	0.37	0.433	0.312	0.457	0.251	0.326	0.267
p	0	0.001	0	0.002	0	0.008	0.002	0.006