



**Figure S1.** Rarefaction curves for the (A) bacterial (B) fungal soil sequences. The curves were obtained after getting the same depth in the samples, 19840 sequences in bacterial data and 15900 sequences in fungal data. (Species diversity = Chao1)

**Table S1.** Characteristics of organic amendments. (mean  $\pm$  standard deviation, (n=3))

	TOC g kg <sup>-1</sup> / mg L <sup>-1</sup>	Total N g kg <sup>-1</sup> / mg L <sup>-1</sup>	C/N	Ca g kg <sup>-1</sup> / mg L <sup>-1</sup>	Mg g kg <sup>-1</sup> / mg L <sup>-1</sup>	P g kg <sup>-1</sup> / mg L <sup>-1</sup>	K g kg <sup>-1</sup> / mg L <sup>-1</sup>	Na g kg <sup>-1</sup> / mg L <sup>-1</sup>
Manure	101 $\pm$ 18	3.9 $\pm$ 0.3	24.9 $\pm$ 3.5	185.6 $\pm$ 25.3	8.4 $\pm$ 1.0	0.9 $\pm$ 0.1	17.6 $\pm$ 3.9	1.5 $\pm$ 0.8
Compost	110 $\pm$ 13	8.3 $\pm$ 0.5	13.4 $\pm$ 1.8	161.6 $\pm$ 13.9	10.2 $\pm$ 0.6	1.3 $\pm$ 0.1	36.2 $\pm$ 6.0	3.1 $\pm$ 1.0
Compost tea	143 $\pm$ 19.6	21.1 $\pm$ 6.8	7.2 $\pm$ 1.7	59.0 $\pm$ 12.5	48.9 $\pm$ 7.9	12.7 $\pm$ 3.3	203.5 $\pm$ 29.9	246.1 $\pm$ 34.1

**Table S2.** Diversity index (Chao1 and Shannon) for the bacterial and fungal community in the three cropping systems. (mean±SD (n=5)).

<b>Bacterial</b>				
<b>Index</b>	<b>Conv</b>	<b>Org_C</b>	<b>Org_M</b>	<b>ANOVA</b>
Chao1	8833.45±619.78	9718.96±665.32	8673.16±633.46	ns
Shannon	7.53±0.17	7.71±0.09	7.42±0.23	ns
<b>Fungal</b>				
<b>Index</b>	<b>Conv</b>	<b>Org_C</b>	<b>Org_M</b>	<b>ANOVA</b>
Chao1	229.52±76.17	138.24±36.25	201.55±42.45	ns
Shannon	2.84±0.60 a	1.27±0.35 b	2.56±0.41 a	**

ns = non-significant; values followed by different letters correspond to significant differences (Tukey's test); significant levels: \*\*\* p < 0.001; \*\*, p < 0.01; \*, p < 0.05; Conv, Conventional system; Org\_C, Organic cultivation with manure compost and tea compost; Org\_M, Organic cultivation with manure.

**Table S3.** Relative abundance of most abundant (>1%) bacterial phyla in the three cropping systems.

<b>Taxonomy</b>	<b>Conv</b>	<b>Org_C</b>	<b>Org_M</b>
<b>Proteobacteria</b>	42.03±6.04	42.11±2.55	41.03±6.66
<b>Actinobacteria</b>	17.78±4.12	15.00±3.36	16.40±4.74
<b>Bacteroidetes</b>	14.66±4.03	9.92±2.20	11.42±3.08
<b>Gemmatimonadetes</b>	11.50±5.31	13.63±1.73	12.87±3.23
<b>Acidobacteria</b>	5.7±1.39	8.07±1.74	8.07±2.23
<b>Planctomycetes</b>	3.35±0.53	5.05±1.11	4.59±0.95
<b>Chloroflexi</b>	1.85±0.13	2.6±0.20	2.41±0.64
<b>Verrucomiota</b>	1.65±0.53	1.89±0.28	2.11±0.41
<b>Firmicutes</b>	1.43±0.87	1.70±0.29	1.09±1.03

Conv, Conventional system; Org\_C, Organic cultivation with manure compost and tea compost; Org\_M, Organic cultivation with manure. Classified as uncultured and unknown were not shown. (Mean±SD (n=5))

**Table S4.** Relative abundance of most abundant (>1%) fungal phyla in the three cropping systems.

<b>Taxonomy</b>	<b>Conv</b>	<b>Org_C</b>	<b>Org_M</b>
<b>Olpidiomycota</b>	9.55±5.17	65.65±41.00	0.74±1.05
<b>Basidiomycota</b>	21.84±12.63	23.50±47.00	36.62±23.57
<b>Glomeromycota</b>	14.34±24.28	0.00±0.00	33.55±23.23
<b>Ascomycota</b>	26.32±9.09	7.78±5.53	11.43±4.67
<b>Mortierellomycota</b>	20.79±7.29	3.07±1.86	15.24±6.12
<b>Mucoromycota</b>	6.41±6.73	0.00±0.00	2.41±4.28
<b>Chytridiomycota</b>	0.42±0.84	0.00±0.00	0.00±0.00

Conv, Conventional system; Org\_C, Organic cultivation with manure compost and tea compost; Org\_M, Organic cultivation with manure. Classified as uncultured and unknown were not shown. (mean±SD (n=5))

**Table S5.** NMDS results between bacterial community and the significant soil properties.

	NMDS1	NMDS2	r2	Pr(>r)
pH	0.31911	0.94772	0.0291	0.845
TOC	0.61792	-0.78624	0.6047	0.005 **
POC	-0.62080	0.78397	0.1902	0.291
TN	0.69486	-0.71915	0.5480	0.011 *
Mg	0.65220	-0.75805	0.4482	0.031 *
K	0.68028	-0.73295	0.2577	0.144
NH4	0.44548	-0.89529	0.6670	0.001 ***
NO3	-0.23042	0.97309	0.1870	0.290
Fe	0.62790	-0.77829	0.2457	0.188
Mn	-0.05603	-0.99843	0.1131	0.469
B	0.50667	-0.86214	0.4486	0.038 *
TP	-0.72397	0.68983	0.2281	0.204
ALT	0.06553	-0.99785	0.0951	0.552
FOX	0.03293	-0.99946	0.3318	0.114

Significant levels: \*\*\* p < 0.001; \*\*, p < 0.01; \*, p < 0.05; TOC, Total Organic Carbon; TN, Total Nitrogen; POC, Particulate Organic Carbon; Mg, Available Mg; K, available K; Fe, available; Mn, available Mn; B, available B; TP, Total Pesticides; ALT, *Alternaria spp.*; FOX, *Fusarium Oxysporum*.

**Table S6.** NMDS results between fungal community and the significant soil properties.

	NMDS1	NMDS2	r2	Pr(>r)
pH	-0.92374	0.38302	0.0036	0.979
TOC	-0.64078	-0.76772	0.0253	0.852
POC	-0.99309	-0.11735	0.0057	0.975
TN	-0.87791	0.47883	0.0228	0.886
Mg	-0.96714	-0.25426	0.1068	0.596
K	-0.85364	0.52087	0.2280	0.271
NH4	-0.22551	0.97424	0.1201	0.516
NO3	0.16120	-0.98692	0.1488	0.448
Fe	-0.34307	-0.93931	0.1793	0.394
Mn	0.30863	-0.95118	0.3478	0.124
B	0.01558	-0.99988	0.0219	0.888
TP	0.61561	-0.78805	0.3771	0.068
ALT	0.28907	-0.95731	0.2485	0.248
FOX	-0.19597	-0.98061	0.2689	0.212

Significant levels: \*\*\* p < 0.001; \*\*, p < 0.01; \*, p < 0.05; TOC, Total Organic Carbon; TN, Total Nitrogen; POC, Particulate Organic Carbon; Mg, available Mg; K, available K; Fe, available; Mn, available Mn; B, available B; TP, Total Pesticides; ALT, *Alternaria spp.*; FOX, *Fusarium Oxysporum*.