

# **Effects of continuous cropping of *Codonopsis tangshen* on soil bacterial community as determined by pyrosequencing**

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**Supplementary Table 1** The relative abundances (%) of the bacteria at the Phylum level

	<b>FLZ1</b>	<b>LZ1</b>	<b>FLZ2</b>	<b>LZ2</b>	<b>FLZ3</b>	<b>LZ3</b>
<b><i>Proteobacteria</i></b>	41.38	39.56	41.42	41.50	37.85	34.55
<b><i>Acidobacteria</i></b>	15.75	21.14	16.52	23.80	19.33	25.49
<b><i>Gemmatimonadetes</i></b>	7.89	8.66	6.48	6.84	12.50	13.08
<b><i>Chloroflexi</i></b>	10.57	5.27	10.42	5.23	10.11	7.39
<b><i>Actinobacteria</i></b>	8.00	7.80	8.31	7.23	3.77	7.83
<b><i>Bacteroidetes</i></b>	4.67	4.62	5.02	3.49	4.31	1.70
<b><i>Nitrospirae</i></b>	4.27	1.56	4.78	1.10	5.21	1.16
<b><i>Verrucomicrobia</i></b>	1.51	2.89	0.96	0.98	0.94	0.63
<b><i>Planctomycetes</i></b>	2.03	0.73	1.57	0.87	1.85	0.67
<b><i>TM7</i></b>	0.28	0.75	0.48	2.43	0.20	2.24
<b><i>WS3</i></b>	1.70	0.42	1.18	0.07	1.94	0.08
<b><i>AD3</i></b>	0.01	1.05	0.01	2.04	0.01	2.00
<b>Others</b>	1.93	5.56	2.85	4.41	1.99	3.20

LZ1, FLZ, LZ2, FLZ2, LZ3 and FLZ3 represent the soil samples collected from continuous cropping (LZ) and main crops (FLZ) at the May 4th (LZ1 and FLZ1), July 14th (LZ2 and FLZ2) and September 19th (LZ3 and FLZ3), 2016.

**Supplementary Table 2** The relative abundances (%) of the bacteria at the class level

	<b>FLZ1</b>	<b>LZ1</b>	<b>FLZ2</b>	<b>LZ2</b>	<b>FLZ3</b>	<b>LZ3</b>
<i>Alphaproteobacteria</i>	16.05	19.62	21.78	29.29	16.93	16.05
<i>Betaproteobacteria</i>	10.38	7.91	7.24	2.90	9.67	10.38
<i>Gammaproteobacteria</i>	6.05	8.09	4.68	5.67	4.33	6.05
<i>Deltaproteobacteria</i>	8.79	3.94	7.57	3.63	6.85	8.79
<i>Gemm-1</i>	4.04	3.77	3.75	4.47	6.29	4.04
<i>Acidobacteria-6</i>	9.56	1.46	9.12	0.89	8.07	9.56
<i>Acidobacteriiia</i>	0.25	7.79	0.39	9.00	1.33	0.25
<i>Gemmatimonadetes</i>	3.40	4.87	2.52	2.35	5.87	3.40
<i>Actinobacteria</i>	4.28	4.27	5.52	4.73	1.25	4.28
<i>Solibacteres</i>	0.89	5.19	1.57	4.60	2.68	0.89
<i>Anaerolineae</i>	6.07	1.25	5.33	0.41	5.46	6.07
<b>DA052</b>	0.03	4.36	0.11	7.66	0.20	0.03
<i>Nitrospira</i>	4.27	1.56	4.78	1.10	5.19	4.27
<i>Acidimicrobiia</i>	1.70	1.27	1.70	1.19	1.58	1.70
<i>Saprospirae</i>	1.97	1.46	2.26	1.24	2.46	1.97
<i>Thermoleophilia</i>	1.78	2.24	0.96	1.30	0.88	1.78
<b>Ellin6529</b>	1.86	0.63	2.26	0.57	2.63	1.86
<i>Ktedonobacteria</i>	0.04	2.11	0.02	2.91	0.09	0.04
<i>Chloracidobacteria</i>	1.66	0.46	1.74	0.37	3.12	1.66
<i>Sphingobacteriia</i>	0.54	2.24	0.70	1.51	0.41	0.54
<b>Others</b>	16.38	15.53	16.00	14.21	14.69	16.38

LZ1, FLZ, LZ2, FLZ2, LZ3 and FLZ3 represent the soil samples collected from continuous cropping (LZ) and main crops (FLZ) at the May 4th (LZ1 and FLZ1), July 14th (LZ2 and FLZ2) and September 19th (LZ3 and FLZ3), 2016.

**Supplementary Table 3** The relative abundances (%) of the bacteria at the genus level

	<b>FLZ1</b>	<b>LZ1</b>	<b>FLZ2</b>	<b>LZ2</b>	<b>FLZ3</b>	<b>LZ3</b>
<b><i>Rhodoplanes</i></b>	3.16	2.64	4.52	2.49	2.04	1.56
<b><i>Candidatus Koribacter</i></b>	0.15	3.13	0.17	4.48	0.57	3.16
<b><i>Candidatus Solibacter</i></b>	0.42	2.69	0.87	2.13	1.46	3.82
<b><i>Rhodanobacter</i></b>	0.64	3.42	0.25	1.84	0.54	4.03
<b><i>Nitrospira</i></b>	2.19	1.11	2.71	1.07	2.41	1.02
<b><i>Sphingobium</i></b>	1.16	1.19	1.36	0.71	2.52	1.98
<b><i>Rhodococcus</i></b>	0.02	0.09	1.54	1.11	0.23	0.02
<b>Unclassified genus</b>	80.41	74.86	76.20	79.09	83.80	81.17
<b>Others</b>	11.85	10.87	12.38	7.09	6.43	3.24

LZ1, FLZ, LZ2, FLZ2, LZ3 and FLZ3 represent the soil samples collected from continuous cropping (LZ) and main crops (FLZ) at the May 4th (LZ1 and FLZ1), July 14th (LZ2 and FLZ2) and September 19th (LZ3 and FLZ3), 2016.

### Supplementary Figure 1 Sampling plan design drawing

