Supplementary Material

Table S1. Characterization of the soil samples collected from each of the 4 treatments (initial conditions)

		Control				SS (10 t/ha)				SS (25 t/ha)				OMW (25 t/ha)			
		Leachable		Total		Leachable		Total		Leachable		Total		Leachable		Total	
Parameter	Units	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev
Li	mg/kg	0.03	0.007	2.89	0.03	0.04	0.002	2.04	0.04	0.01	0.004	2.06	0.01	0.01	0.002	2.63	0.05
B	mg/kg	0.21	0.007	0.07	0.01	0.61	0.01	0.62	0.03	0.87	0.027	0.67	0.04	0.92	0.009	1.32	0.02
Na	g/kg	0.07	0.004	0.14	0.01	0.08	0.004	0.19	0.01	0.08	0.006	0.21	0.03	0.11	0.008	0.27	0.01
Mg	g/kg	0.03	0.007	0.39	0.01	0.03	0.001	0.57	0.04	0.04	0.011	0.88	0.01	0.04	0.007	0.73	0.01
Al	g/kg	0.03	0.004	2.49	0.00	0.03	0.005	2.00	0.07	0.02	0.001	1.88	0.10	0.02	0.003	2.08	0.02
Si	g/kg	0.06	0.005	1.41	0.01	0.06	0.004	0.54	0.04	0.04	0.004	0.76	0.02	0.03	0.006	1.22	0.05
K	g/kg	0.05	0.004	0.57	0.01	0.09	0.01	0.58	0.00	0.11	0.002	0.67	0.01	0.46	0.031	1.35	0.01
Ca	g/kg	0.23	0.009	4.36	0.03	0.22	0.002	5.35	0.27	0.21	0.010	7.78	0.06	0.25	0.041	5.97	0.02
Ti	mg/kg	0.24	0.027	15.51	0.24	0.26	0.03	11.44	2.09	0.22	0.001	20.30	0.46	0.19	0.010	13.41	0.18
V	mg/kg	0.01	0.008	7.68	0.08	0.02	0.01	6.84	0.19	0.01	0.001	6.49	0.15	0.08	0.010	6.53	0.27
Cr	mg/kg	<DL		8.59	0.15	<DL		9.71	0.69	<DL		9.89	0.64	<DL		8.16	0.12
Mn	mg/kg	<DL		53.02	1.80	0.04	0.00	110.89	4.13	<DL		126.94	2.85	<DL		92.89	3.93
Fe	mg/kg	22.54	1.206	5739	81.30	27.49	0.20	5764	30.14	15.28	0.15	6110	4.58	12.61	0.264	4690	289.40
Co	mg/kg	<DL		0.27	0.01	<DL		1.28	0.04	<DL		1.27	0.02	<DL		0.47	0.04
Ni	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Cu	mg/kg	0.13	0.013	28.52	0.59	0.15	0.01	33.97	0.79	0.16	0.01	38.39	1.17	0.12	0.002	29.06	1.46
Zn	mg/kg	<DL		27.14	2.24	<DL		44.17	4.15	<DL		82.32	1.24	<DL		14.73	0.15
As	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Se	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Rb	mg/kg	0.04	0.003	4.89	0.05	0.09	0.003	4.61	0.01	0.11	0.002	4.60	0.09	0.16	0.005	4.92	0.01

		Control				SS (10 t/ha)				SS (25 t/ha)				OMW (25 t/ha)			
Sr	mg/kg	0.34	0.013	7.85	0.06	0.32	0.004	16.58	0.77	0.31	0.004	29.09	0.39	0.28	0.005	17.55	1.60
Y	mg/kg	0.04	0.001	5.79	0.14	0.04	0.002	5.61	0.35	0.04	0.001	5.61	0.23	0.03	0.00	5.49	0.07
Mo	mg/kg	0.02	0.007	0.54	0.02	0.04	0.01	0.65	0.05	0.06	0.010	0.61	0.01	0.02	0.003	0.33	0.004
Cd	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Sn	mg/kg	0.13	0.001	2.81	0.00	0.13	0.00	3.11	0.09	0.13	0.000	3.25	0.08	0.13	0.001	3.33	0.09
Sb	mg/kg	0.15	0.010	3.40	0.36	0.11	0.01	5.61	0.13	0.13	0.005	5.72	0.24	0.09	0.013	2.74	0.01
Cs	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Ba	mg/kg	0.03	0.002	16.20	0.69	0.04	0.00	27.14	0.80	0.01	0.01	44.72	3.37	0.01	0.002	16.65	1.20
Hg	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Pb	mg/kg	<DL		5.54	0.09	<DL		7.57	0.40	<DL		9.58	0.07	<DL		4.14	0.04
U	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
F	mg/kg	12.79	1.90			11.23	2.38			11.86	1.97			17.21	5.33		
Cl	mg/kg	66.08	9.59			56.29	19.08			71.27	19.65			68.03	32.89		
N-NO2-	mg/kg	0.16	0.27			0.95	0.27			1.85	1.03			<DL			
N-NO3-	mg/kg	38.69	21.94			38.19	7.42			34.74	7.35			10.52	4.57		
N-NO3- (KCl ext/ction)	mg/kg	22.46	3.73			25.23	6.15			28.31	8.06			25.85	0.00		
N-NH3	mg/kg	13.40	7.61			38.94	7.33			88.90	14.97			4.81	4.37		
N-NH3 (KCl ext/ction)	mg/kg	11.98	2.66			45.32	10.78			114.67	19.34			6.74	0.36		
TN	g/kg			2.02	0.45			2.45	0.88			3.50	0.85			2.21	0.14
P-PO4	mg/kg	50.05	5.81			52.98	6.59			69.66	23.09			57.03	16.63		
P	mg/kg	134.78	23.57	860	160	76.62	9.37	1330	490	100.27	15.93	3000	660	145.65	45.79	1210	460
SO4	mg/kg	34.62	4.67			107.13	29.43			198.14	51.39			25.53	9.38		
TOC	g/kg			15.18	2.10			21.23	7.35			30.77	6.82			33.17	8.24
Phenols	mg/kg	6.57	0.55			6.57	1.25			9.51	1.18			7.49	0.27		
pH				7.19				6.81				7.14				8.80	

		Control				SS (10 t/ha)				SS (25 t/ha)				OMW (25 t/ha)			
EC	µS/cm			275.1	3.9			421	16.37			585	9.5			535	4.4

Table S2. Characterization of the soil samples collected from each of the 4 treatments (final conditions)

		Control				SS (10 t/ha)				SS (25 t/ha)				OMW (25 t/ha)			
		Leachable		Total		Leachable		Total		Leachable		Total		Leachable		Total	
Parameter	Units	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev	Average	Stdev
Li	mg/kg	0.07	0.009	0.73	0.02	0.05	0.010	1.33	0.02	0.03	0.008	1.02	0.26	0.03	0.00	0.98	0.05
B	mg/kg	0.25	0.016	<DL		0.24	0.005	<DL		0.56	0.057	<DL		1.22	0.01	0.16	0.02
Na	g/kg	0.22	0.018	0.26	0.02	0.20	0.032	0.60	0.01	0.38	0.006	0.48	0.02	0.36	0.05	0.42	0.04
Mg	g/kg	0.02	0.000	0.13	0.00	0.02	0.002	0.31	0.00	0.06	0.011	0.33	0.01	0.04	0.00	0.30	0.00
Al	g/kg	0.07	0.002	1.60	0.15	0.06	0.006	1.71	0.12	0.03	0.001	1.54	0.09	0.04	0.00	1.53	0.13
Si	g/kg	0.10	0.002	0.33	0.03	0.08	0.007	0.48	0.00	0.05	0.002	0.51	0.01	0.05	0.01	0.46	0.01
K	g/kg	0.08	0.003	0.39	0.01	0.06	0.004	0.51	0.01	0.12	0.000	0.50	0.01	0.49	0.12	1.02	0.01
Ca	g/kg	0.11	0.002	1.82	0.01	0.09	0.014	3.67	0.05	0.13	0.002	3.82	0.19	0.09	0.01	3.80	0.06
Ti	mg/kg	0.74	0.036	5.51	0.08	0.48	0.023	7.33	0.24	0.28	0.003	8.63	0.42	0.34	0.05	6.88	0.34
V	mg/kg	0.14	0.012	5.52	0.26	0.10	0.004	5.65	0.39	0.09	0.006	4.91	0.31	0.16	0.01	4.92	0.21
Cr	mg/kg	0.07	0.001	4.70	0.06	0.05	0.006	5.10	0.50	0.03	0.002	4.71	0.02	0.03	0.01	4.33	0.16
Mn	mg/kg	0.21	0.010	62.43	3.98	0.21	0.018	108.11	2.83	0.17	0.001	110.12	5.80	0.21	0.004	88.41	0.57
Fe	g/kg	0.05	0.001	2.79	0.23	0.03	0.001	3.03	0.06	0.02	0.002	3.00	0.10	0.02	0.00	2.35	0.13
Co	mg/kg	<DL		1.13	0.12	<DL		1.41	0.02	<DL		1.55	0.16	<DL		1.21	0.04
Ni	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Cu	mg/kg	0.46	0.020	24.11	0.14	0.29	0.050	25.48	0.48	0.27	0.033	23.45	1.90	0.94	0.01	22.74	0.05
Zn	mg/kg	0.55	0.051	13.02	0.00	0.33	0.003	24.55	1.30	0.27	0.006	31.11	0.49	0.40	0.01	12.15	0.45
As	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Se	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	

Rb	mg/kg	0.13	0.016	5.08	0.42	0.11	0.008	5.92	0.08	0.13	0.011	5.36	0.14	0.28	0.01	5.53	0.43
Sr	mg/kg	0.19	0.005	17.78	0.45	0.14	0.004	19.93	1.87	0.32	0.000	17.46	0.48	0.33	0.00	16.12	0.83
Y	mg/kg	0.03	0.001	4.65	0.06	0.03	0.005	4.16	0.10	0.02	0.001	4.06	0.06	0.03	0.01	4.06	0.05
Mo	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Cd	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Sn	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Sb	mg/kg	0.02	0.000	0.57	0.02	0.02	0.000	0.58	0.01	0.02	0.001	0.67	0.02	0.02	0.00	0.61	0.01
Cs	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Ba	mg/kg	0.13	0.023	11.95	1.05	0.08	0.001	21.42	0.03	0.09	0.003	19.08	0.01	0.08	0.02	10.56	0.09
Hg	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
Pb	mg/kg	<DL		4.68	0.19	<DL		4.64	0.02	<DL		4.46	0.10	<DL		3.09	0.22
U	mg/kg	<DL		<DL		<DL		<DL		<DL		<DL		<DL		<DL	
F	mg/kg	13.97	1.40			17.99	2.93			7.96	0.52			24.85	3.32		
Cl	mg/kg	364.59	110.70			309.97	66.28			763.29	134.0			594.25	40.53		
N-NO2-	mg/kg	0.18	0.25			<DL				0.13	0.18			0.48	0.69		
N-NO3-	mg/kg	18.38	10.96			35.58				82.67	20.44			8.09	10.87		
N-NO3- (KCl ext/ction)	mg/kg	21.03	9.43			26.67	1.45			53.85	19.58			40.51	2.18		
N-NH3	mg/kg	1.25	0.68			<DL				8.77	9.88			<DL			
N-NH3 (KCl ext/ction)	mg/kg	1.87				4.13	1.67			16.90	9.72			5.01	0.83		
TN	g/kg			0.88				1.21				1.50				1.38	
P-PO4	mg/kg	48.94	4.51			30.56	3.34			48.72	27.95			64.06	19.31		
P	mg/kg	144.77	38.64	1020	10	68.31	2.71	1370	350	72.98	3.56	1460	510	134.94	35.59	1000	100
SO4	mg/kg	80.57	65.53			98.38	19.12			306.44	83.08			186.42	78.21		
Phenols	mg/kg	5.48	0.71			5.20	0.17			6.30	0.11			10.65	4.77		
TOC	g/kg			14.59				18.12				19.38				33.36	
pH				6.3				6.22				6.17				8.45	
EC	µS/cm			273	6.4			995	7.1			1317	7.1			1226	6.4

Table S3. Characterization of the tomato samples collected from each of the 4 treatments (final conditions)

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
Parameter	**Units**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**
Li	mg/kg	<DL		<DL		<DL		<DL	
B	mg/kg	8.22	0.18	9.95	0.55	8.32	0.17	8.59	0.56
Na	g/kg	1.60	0.03	1.99	0.10	1.91	0.05	1.94	0.06
Mg	g/kg	1.40	0.03	1.66	0.06	1.46	0.03	1.62	0.18
Al	g/kg	0.16	0.01	0.23	0.01	0.18	0.01	0.17	0.01
Si	g/kg	0.09	0.00	0.10	0.00	0.09	0.00	0.11	0.01
K	g/kg	27.44	0.50	32.83	1.61	29.64	0.66	28.30	1.57
Ca	g/kg	1.11	0.07	0.96	0.12	1.94	0.02	2.65	0.20
Ti	mg/kg	6.38	0.21	5.88	0.22	4.71	0.07	4.94	0.04
V	mg/kg	0.02	0.01	0.03	0.01	0.01	0.00	0.02	0.00
Cr	mg/kg	0.34	0.03	0.27	0.02	0.29	0.03	0.24	0.01
Mn	mg/kg	11.96	1.20	14.82	0.69	12.54	0.18	16.65	0.28
Fe	g/kg	0.04	0.00	0.07	0.01	0.04	0.01	0.03	0.00
Co	mg/kg	<DL		<DL		<DL		<DL	
Ni	mg/kg	<DL		<DL		<DL		<DL	
Cu	mg/kg	7.76	1.60	9.75	1.79	7.50	0.04	8.93	0.02
Zn	mg/kg	19.77	2.43	23.53	0.97	21.15	1.03	20.32	2.10
As	mg/kg	<DL		<DL		<DL		<DL	
Se	mg/kg	<DL		<DL		<DL		<DL	
Rb	mg/kg	15.13	0.25	24.45	0.90	23.27	0.86	16.03	1.73
Sr	mg/kg	2.92	0.10	3.74	0.39	2.64	0.09	2.44	0.47
Y	mg/kg	0.24	0.01	0.28	0.00	0.27	0.01	0.24	0.01
Mo	mg/kg	<DL		<DL		<DL		<DL	
Cd	mg/kg	<DL		<DL		<DL		<DL	

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
Sn	mg/kg	<DL		<DL		<DL		<DL	
Sb	mg/kg	0.55	0.01	0.31	0.02	0.46	0.01	0.41	0.03
Cs	mg/kg	<DL		<DL		<DL		<DL	
Ba	mg/kg	0.42	0.00	0.94	0.13	0.65	0.06	0.73	0.01
Hg	mg/kg	<DL		<DL		<DL		<DL	
Pb	mg/kg	<DL		<DL		<DL		<DL	
U	mg/kg	<DL		<DL		<DL		<DL	
TN	g/kg	15.53		13.51		17.27		15.44	
TOC	g/kg	501.63		411.36		560.05		484.84	
TP	g/kg	3.90	0.08	3.42	0.04	2.80	0.12	2.53	0.07

Table S4. Characterization of the leaf samples collected from each of the 4 treatments (final conditions)

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
Parameter	**Units**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**
Li	mg/kg	0.94	0.16	0.53	0.03	0.25	0.05	0.39	0.11
B	mg/kg	115.16	1.09	90.19	13.85	95.49	4.16	136.75	3.89
Na	g/kg	3.50	0.50	2.84	0.43	2.44	0.28	2.41	0.61
Mg	g/kg	8.23	0.29	12.65	0.51	10.88	0.81	9.29	0.33
Al	g/kg	0.14	0.01	0.19	0.01	0.12	0.00	0.13	0.03
Si	g/kg	0.16	0.01	0.19	0.02	0.21	0.00	0.21	0.01
K	g/kg	10.90	0.41	10.97	0.63	12.35	0.42	20.39	4.02
Ca	g/kg	45.58	3.85	55.07	0.57	54.97	8.26	50.43	6.10
Ti	mg/kg	7.25	0.42	7.28	0.03	8.93	0.01	5.76	0.91

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
V	mg/kg	0.36	0.00	0.33	0.01	0.36	0.04	0.34	0.06
Cr	mg/kg	1.00	0.05	1.14	0.01	1.17	0.01	1.02	0.42
Mn	mg/kg	343.54	19.46	267.32	7.11	195.25	1.06	152.90	12.87
Fe	g/kg	0.18	0.02	0.20	0.01	0.17	0.01	0.17	0.00
Co	mg/kg	<DL		<DL		<DL		<DL	
Ni	mg/kg	<DL		<DL		<DL		<DL	
Cu	mg/kg	16.46	2.96	10.09	2.48	14.28	1.94	11.70	2.38
Zn	mg/kg	26.58	0.39	27.35	4.91	31.52	0.30	19.49	9.91
As	mg/kg	<DL		<DL		<DL		<DL	
Se	mg/kg	0.92	0.01	1.97	0.12	2.16	0.16	1.07	0.07
Rb	mg/kg	5.28	1.17	4.71	0.04	9.88	1.60	12.41	1.89
Sr	mg/kg	120.30	15.94	146.53	6.63	133.55	31.04	127.05	4.45
Y	mg/kg	0.76	0.05	0.91	0.12	0.83	0.08	0.97	0.04
Mo	mg/kg	<DL		<DL		<DL		<DL	
Cd	mg/kg	<DL		<DL		<DL		<DL	
Sn	mg/kg	<DL		<DL		<DL		<DL	
Sb	mg/kg	0.66	0.04	0.76	0.00	0.84	0.02	0.76	0.06
Cs	mg/kg	<DL		<DL		<DL		<DL	
Ba	mg/kg	13.17	0.80	19.33	0.18	26.34	3.30	17.03	2.07
Hg	mg/kg	0.33	0.04	0.29	0.01	0.16	0.04	0.10	0.004
Pb	mg/kg	<DL		<DL		<DL		<DL	
U	mg/kg	<DL		<DL		<DL		<DL	
TN	g/kg	14.54		12.54		21.76		15.27	
TOC	g/kg	419.98		353.74		395.26		398.48	
TP	g/kg	3.67	0.14	2.64	1.54	2.92	1.31	2.74	0.55

Table S5. Characterization of the shoot samples collected from each of the 4 treatments (final conditions)

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
Parameter	**Units**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**
Li	mg/kg	<DL		<DL		<DL		<DL	
B	mg/kg	14.53	1.44	22.91	0.56	15.10	2.37	17.78	0.96
Na	g/kg	4.84	0.32	4.78	0.00	2.69	0.18	3.50	0.05
Mg	g/kg	4.42	1.42	14.39	1.59	6.36	1.24	6.80	2.40
Al	g/kg	0.03	0.01	0.05	0.00	0.03	0.01	0.03	0.00
Si	g/kg	0.09	0.01	0.10	0.02	0.10	0.02	0.11	0.01
K	g/kg	19.01	1.14	18.67	1.44	31.06	0.55	35.30	3.58
Ca	g/kg	9.95	0.24	21.64	2.07	15.50	1.96	14.37	1.99
Ti	mg/kg	5.72	0.86	2.36	0.22	5.30	0.80	6.60	0.05
V	mg/kg	0.05	0.01	0.11	0.01	0.07	0.01	0.08	0.00
Cr	mg/kg	0.67	0.02	0.33	0.01	0.55	0.01	0.32	0.01
Mn	mg/kg	69.14	1.87	130.63	6.68	44.49	12.93	50.03	6.27
Fe	g/kg	0.07	0.01	0.11	0.00	0.07	0.01	0.07	0.01
Co	mg/kg	<DL		<DL		<DL		<DL	
Ni	mg/kg	<DL		<DL		<DL		<DL	
Cu	mg/kg	12.10	0.92	21.76	2.46	15.21	1.74	14.75	0.24
Zn	mg/kg	151.84	5.59	242.61	8.38	97.13	6.54	205.10	4.51
As	mg/kg	<DL		<DL		<DL		<DL	
Se	mg/kg	0.33	0.00	1.99	0.15	0.75	0.01	0.43	0.47
Rb	mg/kg	8.93	1.28	11.01	1.23	24.40	11.08	17.49	1.47
Sr	mg/kg	41.06	7.60	82.65	6.49	52.13	8.14	51.87	7.52
Y	mg/kg	0.34	0.02	0.48	0.01	0.38	0.05	0.36	0.00
Mo	mg/kg	<DL		<DL		<DL		<DL	

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
Cd	mg/kg	<DL		<DL		<DL		<DL	
Sn	mg/kg	<DL		<DL		<DL		<DL	
Sb	mg/kg	0.69	0.09	0.55	0.05	0.50	0.00	0.49	0.10
Cs	mg/kg	<DL		<DL		<DL		<DL	
Ba	mg/kg	3.97	0.59	20.22	4.70	11.44	3.20	7.17	0.42
Hg	mg/kg	<DL		<DL		<DL		<DL	
Pb	mg/kg	<DL		<DL		<DL		<DL	
U	mg/kg	<DL		<DL		<DL		<DL	
TN	g/kg	15.40		13.20		16.43		13.38	
TOC	g/kg	405.38		367.31		415.15		387.55	
TP	g/kg	3.51	0.68	1.08	0.003	3.03	0.55	3.87	2.58

Table S6. Characterization of the root samples collected from each of the 4 treatments (final conditions)

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
Parameter	**Units**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**	**Average**	**Stdev**
Li	mg/kg	0.05	0.01	<DL		0.22	0.02	<DL	
B	mg/kg	14.38	3.33	11.17	0.19	13.04	0.81	11.91	1.99
Na	g/kg	6.12	0.41	7.47	0.94	5.79	0.27	5.16	0.30
Mg	g/kg	2.50	0.48	2.03	0.09	2.93	0.10	2.21	0.26
Al	g/kg	0.28	0.02	0.13	0.00	0.44	0.02	0.32	0.00
Si	g/kg	0.27	0.01	0.14	0.00	0.53	0.00	0.26	0.01
K	g/kg	16.50	1.21	11.00	0.80	13.95	0.33	13.55	1.30

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
Ca	g/kg	12.69	1.61	14.18	0.15	16.34	0.03	15.75	0.63
Ti	mg/kg	7.11	1.36	4.38	0.57	9.02	0.23	4.05	0.06
V	mg/kg	1.02	0.03	0.60	0.06	1.09	0.07	1.12	0.01
Cr	mg/kg	0.88	0.05	1.01	0.11	1.98	0.08	1.25	0.01
Mn	mg/kg	90.62	5.29	49.58	3.07	58.65	2.84	40.88	5.27
Fe	g/kg	0.30	0.01	0.17	0.01	0.71	0.11	0.31	0.01
Co	mg/kg	<DL		<DL		0.04	0.00	<DL	
Ni	mg/kg	<DL		<DL		<DL		<DL	
Cu	mg/kg	28.69	0.40	17.44	2.28	21.24	0.78	15.03	1.50
Zn	mg/kg	344.47	38.24	597.62	22.14	199.71	3.53	114.08	4.79
As	mg/kg	<DL		<DL		<DL		<DL	
Se	mg/kg	<DL		<DL		<DL		<DL	
Rb	mg/kg	9.18	1.82	6.59	0.46	9.03	0.30	10.23	1.22
Sr	mg/kg	53.86	9.21	50.79	1.63	66.18	1.06	63.99	10.69
Y	mg/kg	1.18	0.24	0.71	0.03	0.97	0.03	0.75	0.08
Mo	mg/kg	<DL		<DL		<DL		<DL	
Cd	mg/kg	<DL		<DL		<DL		<DL	
Sn	mg/kg	<DL		<DL		<DL		<DL	
Sb	mg/kg	0.61	0.12	0.74	0.01	0.74	0.13	0.68	0.05
Cs	mg/kg	<DL		<DL		<DL		<DL	
Ba	mg/kg	7.79	1.51	8.14	0.79	17.06	1.99	6.50	1.31
Hg	mg/kg	<DL		<DL		<DL		<DL	
Pb	mg/kg	0.36	0.30	<DL		1.00	0.01	<DL	
U	mg/kg	<DL		<DL		<DL		<DL	
TN	g/kg	14.06		15.07		20.33		14.06	
TOC	g/kg	453.33		441.03		421.48		430.10	

		Control		SS (10 t/ha)		SS (25 t/ha)		OMW (25 t/ha)	
TP	g/kg	3.28	0.19	2.33	0.01	2.92	0.06	1.44	0.01

Table S7. Topological properties of microbial networks in the bulk soil and rhizosphere of soils treated with biochar (SS, OMW) and non-treated (controls).

	Bulk soil				Rhizosphere			
	Control	OMW (25 t/ha)	SS (10 t/ha)	SS (25 t/ha)	Control	OMW (25 t/ha)	SS (10 t/ha)	SS (25 t/ha)
Clustering coefficient	0.544	0.543	0.581	0.603	0.543	0.606	0.561	0.544
Modularity	0.044	0.054	0.044	0.005	0.006	0.109	0.005	0.044
Positive edge (%)	50.50	50.17	50.04	50.03	49.79	49.78	50.04	50.06
Edge density	0.343	0.330	0.342	0.397	0.349	0.356	0.363	0.327
Natural connectivity	0.126	0.118	0.121	0.157	0.124	0.141	0.141	0.118
Edge connectivity	133	169	136	138	135	160	183	167
Average path length	0.842	0.841	0.849	0.853	0.843	0.846	0.846	0.841

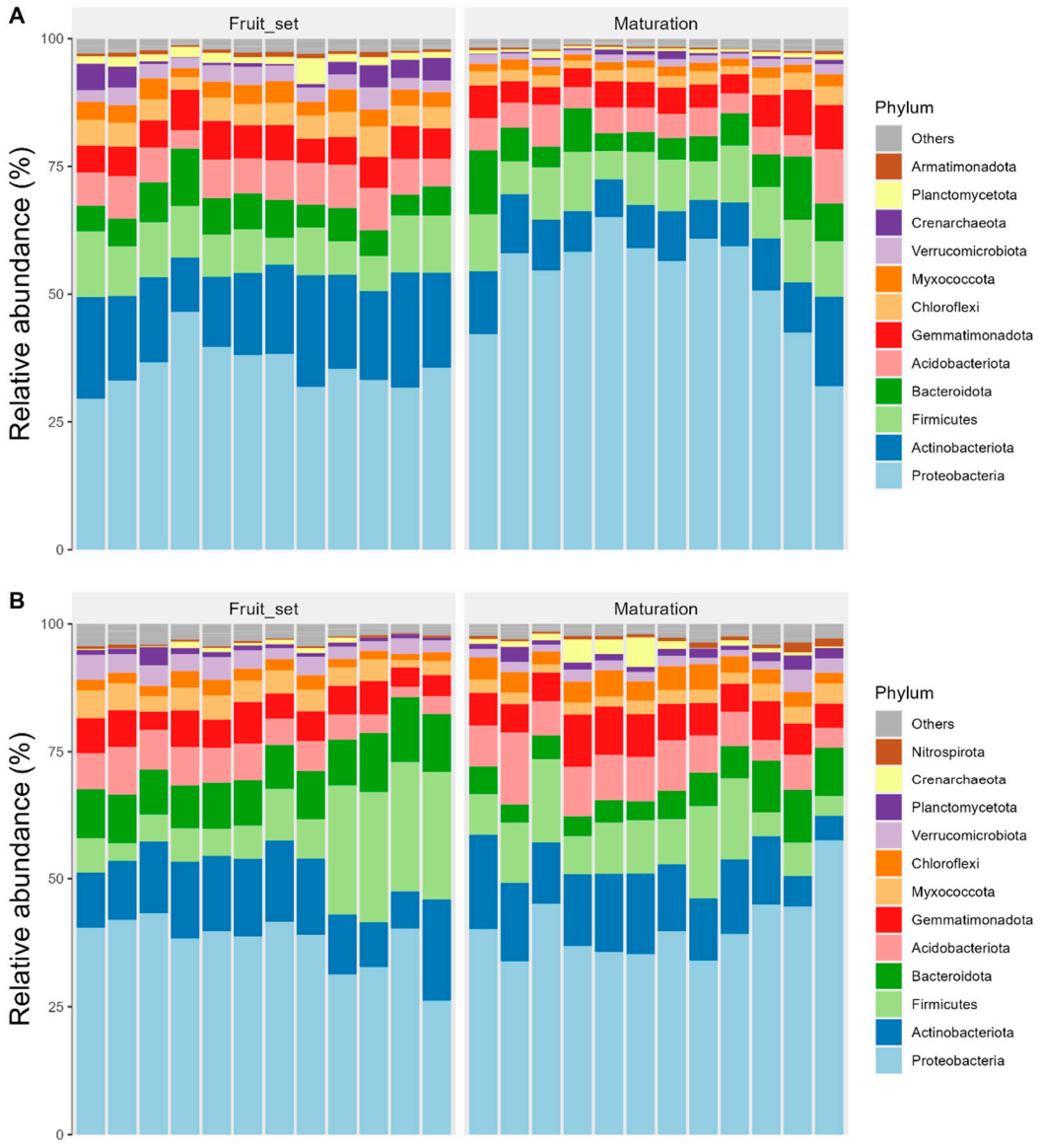


Figure S1. Effect of sampling time on the composition of microbial communities in the bulk soil (A) and rhizosphere (B).

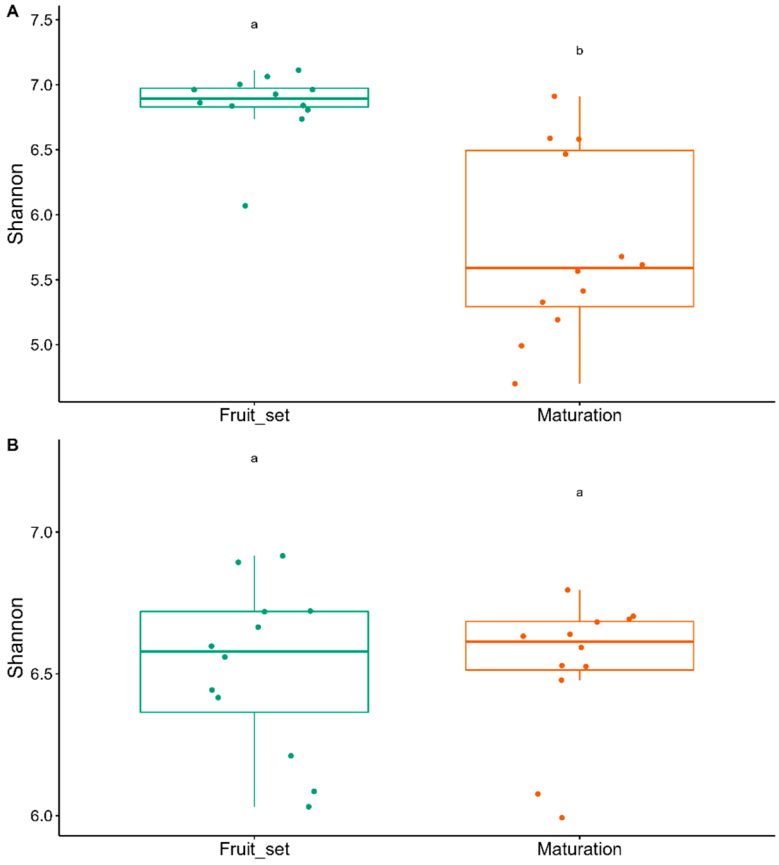


Figure S2. Effect of sampling period on the a diversity of microbial communities in the bulk soil (A) and rhizosphere (B).

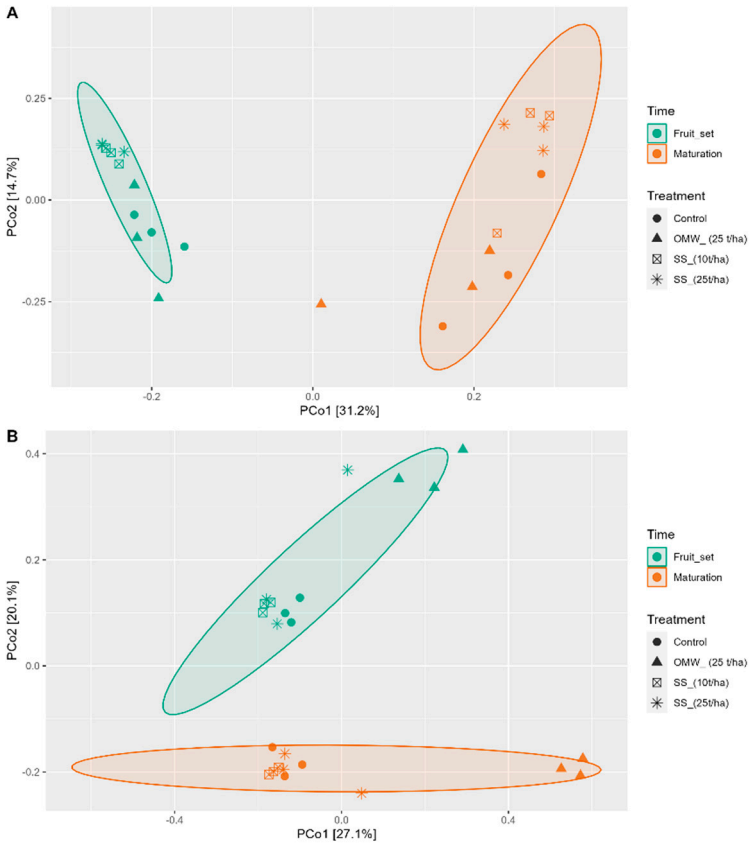


Figure S3. Beta diversity of microbial communities using the Bray distance in the bulk soil (A) and the rhizosphere (B).