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Supplementary Material

Appendix 1 – Experimental Design

Treatment on soil without Biochar	Pot	
Control	1	
	2	
	3	
	4	
	5	
	6	
Pharmaceuticals	7	
	8	
	9	
	10	
	11	
	12	
Mix	25	
	26	
	27	
	28	
	29	
	30	

Treatment on soil amended with Biochar	Pot	
Control	31	
	32	
	33	
	34	
	35	
	36	
Pharmaceuticals	37	
	38	
	39	
	40	
	41	
	42	
Mix	55	
	56	
	57	
	58	
	59	
	60	

Appendix 2 – Germination Rate

Days of Sowing	Pharma		Pharma+BC	
	<i>Avg</i>	<i>Std</i>	<i>Avg</i>	<i>Std</i>
9	0.50	0.55	0.67	0.82
10	1.67	0.52	1.33	0.82
12	2	0	1.33	0.82
13	2	0	2	0
14	2	0	2	0
15	2	0	2	0

Days of Sowing	Mix		Mix+BC	
	<i>Avg</i>	<i>Std</i>	<i>Avg</i>	<i>Std</i>
9	0.33	0.52	0.17	0.41
10	1.50	0.84	0.83	0.75
12	1.83	0.41	1.83	0.41
13	2	0	2	0
14	2	0	2	0
15	2	0	2	0

Appendix 3 – Biomass Yield

	Average (Wet) (g)	Std Deviation (Wet)	Average (dry) (g)	Std Deviation (dry)
Control	36.4020071	6.46404956	6.39033333	0.44815831
Control + BC	170.775	5.25095325	18.6895	1.17532561
Pharma	37.95	8.93772678	5.60416667	0.75752371
Pharma + BC	159.701667	8.34383465	17.693	0.8835268
Mix	39.0033333	4.27208458	6.05883333	0.5520295
Mix + BC	167.226667	9.25302041	19.2455	1.1416556

Appendix 4 - Concentration of PhACs

		Pharma		Pharma + BC		
Concentration in Biomass (ng/g)		Average	Standard Deviation	Average	Standard Deviation	
		carbamazepine	214.3791	14.6877	72.7152	16.4130
		tramadol	46.6931	8.6181	35.2590	6.9588
		citalopram	0.2966	0.0768	0.1364	0.0355
		metoprolol	9.5381	1.9980	3.0952	0.4137
		propafenone	0.8092	0.1049	0.3807	0.0326
		sertraline	0.6396	0.1487	0.3631	0.1396
		tiapride	5.9241	1.2118	2.1932	0.6679
		amisulpride	2.2198	0.4169	0.8816	0.2673
		trospium	1.1853	0.1832	0.6647	0.1137
		venlafaxine	3.5210	0.5662	2.8869	0.4998

		Mix		Mix + BC		
Concentration in Biomass (ng/g)		Average	Standard Deviation	Average	Standard Deviation	
		carbamazepine	218.5305	29.6662	84.8443	25.0503
		tramadol	48.9593	7.6681	41.5306	11.2062
		citalopram	0.3950	0.1207	0.5104	0.5735
		metoprolol	9.5324	1.5075	3.9071	1.0064
		propafenone	0.8653	0.0834	0.5891	0.4243
		sertraline	0.5541	0.1085	0.3508	0.3155
		tiapride	5.1368	1.0161	2.3849	0.6287
		amisulpride	2.0721	0.4496	1.0293	0.7160
		trospium	1.3016	0.2751	0.9983	0.8035
		venlafaxine	3.7805	0.6924	3.3582	0.7497

Raw Data for PhACs Concentration on Each Pot

Sample											
Data File	Comment	Final Conc.	Final Conc.	Final Conc.	Final Conc.	Final Conc.	Final Conc.	Final Conc.	Final Conc.	Final Conc.	Final Conc.
RECOVERY (%)		93.01572	100.24	94.3859	90.951	83.3744	92.47058	96.50352	95.24085	103.0458	96.04165
	ng/g in dry biomass										
15 7.d	Pharmaceuticals	2.588777	233.26	0.370993	12.18975	0.896837	0.699273	6.902818	62.1968	1.282046	4.506961
23 8.d	Pharmaceuticals	2.751802	215.3	0.388724	9.907555	0.813674	0.796125	7.503158	46.56958	1.500796	3.300792
35 9.d	Pharmaceuticals	2.350085	216.93	0.237581	11.49602	0.911203	0.751406	6.581165	48.3509	1.171114	3.594451
49 10.d	Pharmaceuticals	1.647884	195.81	0.209248	7.20652	0.656683	0.556347	4.832033	37.04468	0.992693	2.954283
57 11.d	Pharmaceuticals	2.005169	225.96	0.332115	8.310613	0.868144	0.645984	4.947449	44.97758	1.067475	3.715666
71 12.d	Pharmaceuticals	1.975182	199.02	0.240828	8.11811	0.708388	0.388486	4.778136	41.01908	1.097771	3.054029
19 37.d	Pharmaceuticals+BC	0.910316	65.202	0.128523	3.053632	0.393132	0.537518	2.541169	31.15043	0.661495	2.403525
31 38.d	Pharmaceuticals+BC	0.58098	91.525	0.15886	3.611703	0.437636	0.266946	1.826733	44.01193	0.515403	3.254577
39 39.d	Pharmaceuticals+BC	0.806324	71.712	0.131268	3.354464	0.355682	0.200436	2.389662	40.01218	0.622926	3.210495
53 40.d	Pharmaceuticals+BC	0.711729	90.533	0.158962	3.307501	0.383888	0.254936	2.200104	40.14637	0.610449	3.480858
66 41.d	Pharmaceuticals+BC	0.918982	48.098	0.168824	2.505845	0.348346	0.436311	1.120968	27.87447	0.730748	2.710519
74 42.d	Pharmaceuticals+BC	1.361453	69.222	0.071896	2.738066	0.365527	0.48223	3.080374	28.35836	0.847009	2.261343
18 25.d	MIX	2.903203	172.39	0.56069	11.09833	0.969683	0.660737	6.861075	58.73579	1.846327	4.084207
25 26.d	MIX	1.907268	207.44	0.342428	8.295136	0.864994	0.439931	4.836025	46.04791	1.151096	3.631385
38 27.d	MIX	1.83802	244.34	0.376883	9.733659	0.874666	0.39876	4.672168	51.15892	1.141417	4.297904
52 28.d	MIX	1.860568	207.96	0.216949	8.072681	0.879816	0.57738	5.182456	41.10421	1.186344	2.782174
65 29.d	MIX	1.671181	223.88	0.496092	8.452201	0.713566	0.628128	3.80505	40.52265	1.323275	3.249221
73 30.d	MIX	2.252272	255.17	0.377078	11.54268	0.889285	0.619918	5.464103	56.18619	1.161123	4.638326
22 55.d	MIX+BC	2.436731	65.171	1.605531	3.570484	1.445193	0.989375	3.463452	29.44607	2.621806	2.854887
34 56.d	MIX+BC	1.080453	77.789	0.689614	5.011615	0.511317	0.232508	2.845363	45.25502	0.894067	3.499021
48 57.d	MIX+BC	0.539141	110.35	0.236984	3.944961	0.471239	0.1832	1.988773	40.83131	0.634683	3.221885
56 58.d	MIX+BC	0.730939	59.913	0.138931	2.764913	0.333732	0.249796	1.989114	30.66466	0.639476	2.728024
70 59.d	MIX+BC	0.808618	74.614	0.165581	2.987255	0.385772	0.279706	2.076249	42.80662	0.638657	3.061387
82 60.d	MIX+BC	0.579789	121.23	0.225464	5.163607	0.387609	0.170381	1.94641	60.18009	0.560989	4.784173

Appendix 5 - Treatment and Irrigation

Amount of Demineralised Water Treatment

	MWHC/Date	Ctrl	Ph	Mix	Ctrl+BC	Ph+bc	Mix+bc
Amount of Irrigation (ml)	40% 31.5	176.32	174.18	184.53	185.03	184.02	178.18
	40% 3.6	110.94	114.60	120.46	121.41	117.88	115.79
	40% 6.6	105.63	110.81	111.80	106.00	108.06	103.32
	40% 8.6	81.78	87.71	91.87	88.09	89.41	83.81
	40% 11.6	111.09	107.16	102.32	96.97	104.26	106.40
	40% 13.6	112.01	110.47	104.86	96.62	104.91	107.00
	60% 27.6	167.00	159.00	103.00	94.00	189.00	124.00
	80% 1.7	303.00	329.00	286.00	320.00	340.00	305.00
	60% 4.7	47.17	65.83	58.00	53.50	54.00	60.83
	70% 11.7	177.33	177.00	149.33	202.83	198.00	203.50
	73% 12.7	157.09	146.41	156.73	190.53	167.42	189.49
	73% 18.7	228.83	220.00	227.50	242.50	248.00	239.83
	80% 25.7	168.33	156.50	160.00	204.33	215.00	222.17
	80% 1.8	163.83	153.67	153.17	197.00	199.67	175.83
	60% 5.8	29.50	27.33	21.33	90.17	102.33	88.50
	80% 8.8	214.17	206.67	208.33	298.67	298.50	296.50
	90% 9.8				157.00	167.50	155.67
	TOTAL	2354.01	2346.32	2239.23	2744.65	2887.95	2755.81
	Std	69.3382	70.0638	65.7713	77.6511	77.2164	73.3477

Amount of Irrigated Chemicals

	Average Water Consumption (ml)	Average of Chemicals Solution Applied (ml)	Standard Deviation
Ctrl	5416.01	X	69.338
Ctrl + BC	8110.65	X	77.651
Pharma	2346.32	3062	70.064
Pharma + BC	2887.95	5366	77.216
Mix	2239.23	3062	65.771
Mix + BC	2755.81	5366	73.348