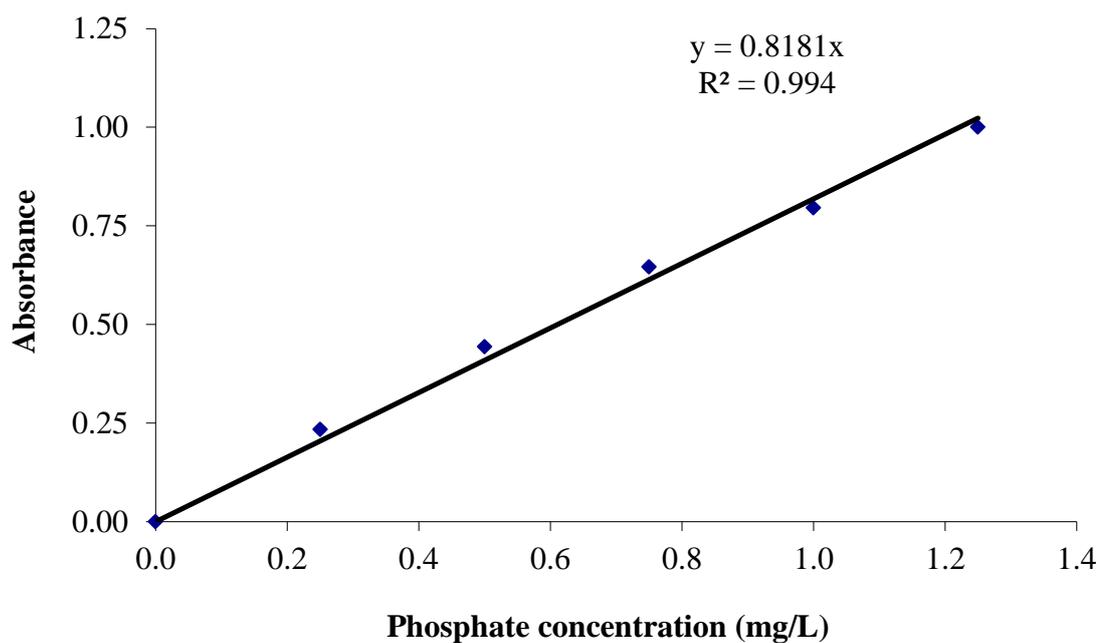


## **APPENDICES**

**Appendix A** Standard curve of phosphate**Table A** Concentration of phosphate to make calibration curve

Phosphate concentration (mg L <sup>-1</sup> )	Absorbance
0	0.000
0.25	0.234
0.50	0.444
0.75	0.646
1.00	0.796
1.25	1.001

**Figure A** Calibration curve of phosphate concentration related absorbance

## Appendix B Raw data

### Appendix B.1 Phosphorus removal by *S. Clevelandii*, *C. asiaticum* Linn, and *E. cordifolius* under soilless conditions

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.092	0.102	0.094	1.974	2.189	2.017	2.060	0.114
	<i>C. asiaticum</i> Linn+wastewater	0.108	0.107	0.097	2.318	2.296	2.082	2.232	0.131
	<i>S. clevelandii</i> +wastewater	0.097	0.109	0.108	2.082	2.339	2.318	2.246	0.143
	<i>E. cordifolius</i> +wastewater	0.117	0.108	0.123	2.511	2.318	2.639	2.489	0.162
1	Wastewater	0.060	0.046	0.067	1.288	0.987	1.438	1.237	0.229
	<i>C. asiaticum</i> Linn+wastewater	0.039	0.055	0.068	0.837	1.180	1.459	1.159	0.312
	<i>S. clevelandii</i> +wastewater	0.059	0.058	0.055	1.266	1.245	1.180	1.230	0.045
	<i>E. cordifolius</i> +wastewater	0.025	0.042	0.046	0.536	0.901	0.987	0.808	0.239
3	Wastewater	0.057	0.044	0.052	1.223	0.944	1.116	1.094	0.141
	<i>C. asiaticum</i> Linn+wastewater	0.038	0.034	0.048	0.815	0.730	1.030	0.858	0.155
	<i>S. clevelandii</i> +wastewater	0.052	0.044	0.048	1.116	0.944	1.030	1.030	0.086
	<i>E. cordifolius</i> +wastewater	0.023	0.027	0.007	0.494	0.579	0.150	0.408	0.227
5	Wastewater	0.043	0.042	0.045	0.923	0.901	0.966	0.930	0.033
	<i>C. asiaticum</i> Linn+wastewater	0.008	0.012	0.003	0.172	0.258	0.064	0.165	0.165
	<i>S. clevelandii</i> +wastewater	0.028	0.031	0.037	0.601	0.665	0.794	0.687	0.098
	<i>E. cordifolius</i> +wastewater	0.004	0.019	0.006	0.086	0.408	0.129	0.207	0.175
7	Wastewater	0.041	0.041	0.042	0.880	0.880	0.901	0.887	0.012
	<i>C. asiaticum</i> Linn+wastewater	0.003	0.006	0.000	0.064	0.129	0.000	0.064	0.064
	<i>S. clevelandii</i> +wastewater	0.018	0.018	0.014	0.386	0.386	0.300	0.358	0.050
	<i>E. cordifolius</i> +wastewater	0.000	0.006	0.000	0.000	0.129	0.000	0.043	0.074



**Appendix B.2 Phosphorus removal by *R. apiculata*, *T. dealbata* J. Fraser, and *H. psittacorum* under soilless conditions**

Days	Treatments	OD		Phosphate concentration (mg L <sup>-1</sup> )		Average	SD
		I	II	I	II		
0	Wastewater	0.079	0.073	1.695	1.567	1.631	0.091
	<i>R. apiculata</i> +wastewater	0.075	0.078	1.609	1.674	1.642	0.046
	<i>T. dealbata</i> +wastewater	0.084	0.083	1.803	1.781	1.792	0.015
	<i>H. psittacorum</i> +wastewater	0.082	0.074	1.760	1.588	1.674	0.121
1	Wastewater	0.062	0.065	1.330	1.395	1.363	0.046
	<i>R. apiculata</i> +wastewater	0.052	0.055	1.116	1.180	1.148	0.046
	<i>T. dealbata</i> +wastewater	0.053	0.052	1.137	1.116	1.127	0.015
	<i>H. psittacorum</i> +wastewater	0.062	0.058	1.330	1.245	1.288	0.061
3	Wastewater	0.052	0.053	1.116	1.137	1.127	0.015
	<i>R. apiculata</i> +wastewater	0.051	0.050	1.094	1.073	1.084	0.015
	<i>T. dealbata</i> +wastewater	0.035	0.039	0.751	0.837	0.794	0.061
	<i>H. psittacorum</i> +wastewater	0.058	0.055	1.245	1.180	1.212	0.046
7	Wastewater	0.034	0.035	0.730	0.751	0.740	0.015
	<i>R. apiculata</i> +wastewater	0.041	0.037	0.880	0.794	0.837	0.061
	<i>T. dealbata</i> +wastewater	0.023	0.028	0.494	0.601	0.547	0.076
	<i>H. psittacorum</i> +wastewater	0.045	0.043	0.966	0.923	0.944	0.030
12	Wastewater	0.032	0.033	0.687	0.708	0.697	0.015
	<i>R. apiculata</i> +wastewater	0.034	0.030	0.730	0.644	0.687	0.061
	<i>T. dealbata</i> +wastewater	0.020	0.024	0.429	0.515	0.472	0.061
	<i>H. psittacorum</i> +wastewater	0.038	0.773	0.815	0.773	0.794	0.030







**Appendix B.3 Treatment of phosphorus from domestic wastewater by *C. asiaticum* Linn and *E.cordifolius* under soilless conditions in cycle 4 (Cont.)**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.096	0.085	0.094	2.060	1.824	2.017	1.967	0.126
	<i>C. asiaticum</i> Linn+wastewater	0.096	0.085	0.094	2.060	1.824	2.017	1.967	0.126
	<i>E. cordifolius</i> +wastewater	0.096	0.085	0.094	2.060	1.824	2.017	1.967	0.126
1	Wastewater	0.075	0.077	0.074	1.609	1.652	1.588	1.617	0.033
	<i>C. asiaticum</i> Linn+wastewater	0.055	0.054	0.060	1.180	1.159	1.288	1.209	0.069
	<i>E. cordifolius</i> +wastewater	0.024	0.025	0.020	0.515	0.536	0.429	0.494	0.057
3	Wastewater	0.055	0.052	0.050	1.180	1.116	1.073	1.123	0.054
	<i>C. asiaticum</i> Linn+wastewater	0.026	0.028	0.031	0.558	0.601	0.665	0.608	0.054
	<i>E. cordifolius</i> +wastewater	0.013	0.007	0.013	0.279	0.150	0.279	0.236	0.074
7	Wastewater	0.052	0.047	0.045	1.116	1.009	0.966	1.030	0.077
	<i>C. asiaticum</i> Linn+wastewater	0.019	0.025	0.010	0.408	0.536	0.215	0.386	0.162
	<i>E. cordifolius</i> +wastewater	0.030	0.028	0.035	0.644	0.601	0.751	0.665	0.077
10	Wastewater	0.041	0.042	0.038	0.880	0.901	0.815	0.866	0.045
	<i>C. asiaticum</i> Linn+wastewater	0.012	0.019	0.009	0.258	0.408	0.193	0.286	0.110
	<i>E. cordifolius</i> +wastewater	0.042	0.036	0.048	0.901	0.773	1.030	0.901	0.129

**Appendix B.4 Remaining phosphate concentration in sterile domestic wastewater at various times**

Days	Treatments	OD		Phosphate concentration (mg L <sup>-1</sup> )		Average	SD
		I	II	I	II		
0	Sterile wastewater	0.074	0.077	1.588	1.652	1.620	0.046
3	Sterile wastewater	0.070	0.079	1.502	1.695	1.599	0.137
5	Sterile wastewater	0.075	0.076	1.609	1.631	1.620	0.015
10	Sterile wastewater	0.080	0.074	1.717	1.588	1.652	0.091

**Appendix B.5 Change in pH during phosphorus treatment from domestic wastewater by *E. cordifolius*, *C. asiaticum*, and *S. clevelandii* under soilless conditions**

Days	Treatments	pH			Average	SD
		I	II	III		
0	Wastewater	7.42	7.23	7.16	7.27	0.13
	<i>C. asiaticum</i> Linn+wastewater	7.16	7.13	7.44	7.24	0.17
	<i>S. clevelandii</i> +wastewater	7.18	7.27	7.19	7.21	0.05
	<i>E. cordifolius</i> +wastewater	7.09	7.30	7.29	7.23	0.12
1	Wastewater	7.88	7.85	7.90	7.88	0.03
	<i>C. asiaticum</i> Linn+wastewater	7.31	7.36	7.26	7.31	0.05
	<i>S. clevelandii</i> +wastewater	7.51	7.41	7.43	7.45	0.05
	<i>E. cordifolius</i> +wastewater	7.40	7.40	7.26	7.35	0.08
3	Wastewater	8.08	7.94	7.83	7.95	0.13
	<i>C. asiaticum</i> Linn+wastewater	7.58	7.50	7.63	7.57	0.07
	<i>S. clevelandii</i> +wastewater	7.78	7.81	7.65	7.75	0.09
	<i>E. cordifolius</i> +wastewater	7.50	7.52	7.49	7.50	0.02
5	Wastewater	7.92	7.86	7.84	7.87	0.04
	<i>C. asiaticum</i> Linn+wastewater	7.66	7.50	7.59	7.58	0.08
	<i>S. clevelandii</i> +wastewater	7.47	7.50	7.51	7.49	0.02
	<i>E. cordifolius</i> +wastewater	7.35	7.38	7.41	7.38	0.03
7	Wastewater	8.15	8.04	7.93	8.04	0.11
	<i>C. asiaticum</i> Linn+wastewater	7.52	7.53	7.41	7.49	0.07
	<i>S. clevelandii</i> +wastewater	7.59	7.69	7.34	7.54	0.18
	<i>E. cordifolius</i> +wastewater	7.32	7.37	7.45	7.38	0.07

**Appendix B.5 Change in pH during phosphorus treatment from domestic wastewater by *E. cordifolius*, *C. asiaticum*, and *S. clevelandii* under soilless conditions (Cont.)**

Days	Treatments	pH			Average	SD
		I	II	III		
9	Wastewater	8.03	8.04	8.04	8.04	0.01
	<i>C. asiaticum</i> Linn+wastewater	7.45	7.50	7.56	7.50	0.06
	<i>S. clevelandii</i> +wastewater	7.46	7.41	7.49	7.45	0.04
	<i>E. cordifolius</i> +wastewater	7.40	7.48	7.74	7.54	0.18
12	Wastewater	7.72	7.84	7.79	7.78	0.06
	<i>C. asiaticum</i> Linn+wastewater	7.22	7.44	7.37	7.34	0.11
	<i>S. clevelandii</i> +wastewater	7.59	7.33	7.46	7.46	0.13
	<i>E. cordifolius</i> +wastewater	7.27	7.39	7.26	7.31	0.07

**Appendix B.6 Change in pH during phosphorus treatment from domestic wastewater by *R. apiculata*, *T. dealbata*, and *H. psittacorum* under soilless conditions**

Days	Treatments	pH		Average	SD
		I	II		
0	Wastewater	7.79	7.65	7.72	0.10
	<i>R. apiculata</i> +wastewater	7.63	7.48	7.56	0.11
	<i>T. dealbata</i> +wastewater	7.43	7.41	7.42	0.01
	<i>H. psittacorum</i> +wastewater	7.51	7.45	7.48	0.04
1	Wastewater	7.88	7.99	7.94	0.08
	<i>R. apiculata</i> +wastewater	7.74	7.70	7.72	0.03
	<i>T. dealbata</i> +wastewater	7.81	7.76	7.79	0.04
	<i>H. psittacorum</i> +wastewater	7.85	7.86	7.86	0.01
3	Wastewater	9.21	9.16	9.19	0.04
	<i>R. apiculata</i> +wastewater	8.30	7.96	8.13	0.24
	<i>T. dealbata</i> +wastewater	7.38	7.49	7.44	0.08
	<i>H. psittacorum</i> +wastewater	7.88	7.72	7.80	0.11
7	Wastewater	8.67	9.10	8.89	0.30
	<i>R. apiculata</i> +wastewater	8.59	8.45	8.52	0.10
	<i>T. dealbata</i> +wastewater	7.82	7.66	7.74	0.11
	<i>H. psittacorum</i> +wastewater	7.95	8.16	8.06	0.15
12	Wastewater	8.22	8.21	8.22	0.01
	<i>R. apiculata</i> +wastewater	8.00	8.00	8.02	0.02
	<i>T. dealbata</i> +wastewater	7.86	7.86	7.85	0.01
	<i>H. psittacorum</i> +wastewater	8.13	8.13	8.02	0.16

**Appendix B.7 Change in pH during phosphorus treatment from domestic wastewater by *E. cordifolius* and *C. asiaticum* in cycle 1**

Days	Treatments	pH			Average	SD
		I	II	III		
0	Wastewater	7.42	7.23	7.16	7.27	0.13
	<i>C. asiaticum</i> Linn+wastewater	7.16	7.13	7.44	7.24	0.17
	<i>E. cordifolius</i> +wastewater	7.09	7.30	7.29	7.23	0.12
1	Wastewater	7.88	7.85	7.90	7.88	0.03
	<i>C. asiaticum</i> Linn+wastewater	7.31	7.36	7.26	7.31	0.05
	<i>E. cordifolius</i> +wastewater	7.40	7.40	7.26	7.35	0.08
3	Wastewater	8.08	7.94	7.83	7.95	0.13
	<i>C. asiaticum</i> Linn+wastewater	7.58	7.50	7.63	7.57	0.07
	<i>E. cordifolius</i> +wastewater	7.50	7.52	7.49	7.50	0.02
5	Wastewater	7.92	7.86	7.84	7.87	0.04
	<i>C. asiaticum</i> Linn+wastewater	7.66	7.50	7.59	7.58	0.08
	<i>E. cordifolius</i> +wastewater	7.35	7.38	7.41	7.38	0.03
7	Wastewater	8.15	8.04	7.93	8.04	0.11
	<i>C. asiaticum</i> Linn+wastewater	7.52	7.53	7.41	7.49	0.07
	<i>E. cordifolius</i> +wastewater	7.32	7.37	7.45	7.38	0.07
9	Wastewater	8.03	8.04	8.04	8.04	0.01
	<i>C. asiaticum</i> Linn+wastewater	7.45	7.50	7.56	7.50	0.06
	<i>E. cordifolius</i> +wastewater	7.40	7.48	7.74	7.54	0.18
12	Wastewater	7.72	7.84	7.79	7.78	0.06
	<i>C. asiaticum</i> Linn+wastewater	7.22	7.44	7.37	7.34	0.11
	<i>E. cordifolius</i> +wastewater	7.27	7.39	7.26	7.31	0.07

**Appendix B.7 Change in pH during phosphorus treatment from domestic wastewater by *E. cordifolius* and *C. asiaticum* in cycle 2 (Cont.)**

Days	Treatments	pH			Average	SD
		I	II	III		
0	Wastewater	7.44	7.52	7.44	7.47	0.05
	<i>C. asiaticum</i> Linn+wastewater	7.60	7.51	7.53	7.55	0.05
	<i>E. cordifolius</i> +wastewater	7.55	7.67	7.56	7.59	0.07
3	Wastewater	8.23	8.19	8.18	8.20	0.03
	<i>C. asiaticum</i> Linn+wastewater	7.72	7.73	7.66	7.70	0.04
	<i>E. cordifolius</i> +wastewater	7.90	8.00	8.19	8.03	0.15
6	Wastewater	8.75	9.05	8.62	8.81	0.22
	<i>C. asiaticum</i> Linn+wastewater	7.88	7.86	8.17	7.97	0.17
	<i>E. cordifolius</i> +wastewater	7.71	7.76	7.65	7.71	0.06
9	Wastewater	9.16	9.21	9.25	9.21	0.05
	<i>C. asiaticum</i> Linn+wastewater	7.80	7.81	7.89	7.83	0.05
	<i>E. cordifolius</i> +wastewater	7.79	7.88	7.76	7.81	0.06
12	Wastewater	8.03	8.00	8.08	8.04	0.04
	<i>C. asiaticum</i> Linn+wastewater	7.25	7.20	7.37	7.27	0.09
	<i>E. cordifolius</i> +wastewater	7.26	7.13	7.12	7.17	0.08

**Appendix B.7 Change in pH during phosphorus treatment from domestic wastewater by *E. cordifolius* and *C. asiaticum* in cycle 3 (Cont.)**

Days	Treatments	pH			Average	SD
		I	II	III		
0	Wastewater	7.79	7.65	7.63	7.69	0.09
	<i>C. asiaticum</i> Linn+wastewater	7.55	7.93	7.79	7.76	0.19
	<i>E. cordifolius</i> +wastewater	7.76	7.87	7.87	7.83	0.06
1	Wastewater	7.88	7.99	7.85	7.91	0.07
	<i>C. asiaticum</i> Linn+wastewater	7.69	7.65	7.94	7.76	0.16
	<i>E. cordifolius</i> +wastewater	7.79	7.62	8.09	7.83	0.24
3	Wastewater	9.21	9.16	8.99	9.12	0.12
	<i>C. asiaticum</i> Linn+wastewater	8.06	8.25	8.08	8.13	0.10
	<i>E. cordifolius</i> +wastewater	7.60	7.73	7.91	7.75	0.16
7	Wastewater	8.67	9.10	8.85	8.87	0.22
	<i>C. asiaticum</i> Linn+wastewater	7.76	7.67	7.56	7.66	0.10
	<i>E. cordifolius</i> +wastewater	7.56	7.31	7.34	7.40	0.14

**Appendix B.7 Change in pH during phosphorus treatment from domestic wastewater by *E. cordifolius* and *C. asiaticun* in cycle 4 (Cont.)**

Days	Treatments	pH			Average	SD
		I	II	III		
0	Wastewater	8.22	8.12	8.18	8.17	0.05
	<i>C. asiaticum</i> Linn+wastewater	7.93	7.87	7.94	7.91	0.04
	<i>E. cordifolius</i> +wastewater	7.87	8.03	7.81	7.90	0.11
1	Wastewater	8.09	8.14	8.03	8.09	0.06
	<i>C. asiaticum</i> Linn+wastewater	8.04	8.21	8.23	8.16	0.10
	<i>E. cordifolius</i> +wastewater	8.06	8.22	7.98	8.09	0.12
3	Wastewater	7.94	8.10	8.00	8.01	0.08
	<i>C. asiaticum</i> Linn+wastewater	7.86	7.49	7.51	7.62	0.21
	<i>E. cordifolius</i> +wastewater	7.34	7.76	7.58	7.56	0.21

**Appendix B.8 Treatment of phosphorus from domestic wastewater by *E. cordifolius*, *S. ovata* and *S. montevidensis* under soil conditions**

Days	Treatments	OD		Phosphate concentration (mg L <sup>-1</sup> )		Average	SD
		I	II	I	II		
0	Wastewater	0.059	0.059	0.797	0.797	0.797	0.000
	Wastewater+soil	0.059	0.059	0.797	0.797	0.797	0.000
	<i>E. cordifolius</i> +soil+wastewater	0.059	0.059	0.797	0.797	0.797	0.000
	<i>S. montevidensis</i> +soil+wastewater	0.059	0.059	0.797	0.797	0.797	0.000
	<i>S. ovata</i> +soil+wastewater	0.059	0.059	0.797	0.797	0.797	0.000
1	Wastewater	0.053	0.050	0.716	0.676	0.696	0.029
	Wastewater+soil	0.048	0.050	0.649	0.676	0.662	0.019
	<i>E. cordifolius</i> +soil+wastewater	0.029	0.041	0.392	0.554	0.473	0.115
	<i>S. montevidensis</i> +soil+wastewater	0.015	0.024	0.203	0.324	0.264	0.086
	<i>S. ovata</i> +soil+wastewater	0.048	0.050	0.649	0.676	0.588	0.048
3	Wastewater	0.046	0.045	0.622	0.608	0.615	0.010
	Wastewater+soil	0.041	0.045	0.554	0.608	0.581	0.038
	<i>E. cordifolius</i> +soil+wastewater	0.012	0.029	0.162	0.392	0.277	0.162
	<i>S. montevidensis</i> +soil+wastewater	0.011	0.023	0.149	0.311	0.230	0.115
	<i>S. ovata</i> +soil+wastewater	0.035	0.032	0.473	0.432	0.453	0.029
6	Wastewater	0.039	0.038	0.527	0.514	0.520	0.010
	Wastewater+soil	0.022	0.022	0.297	0.297	0.297	0.000
	<i>E. cordifolius</i> +soil+wastewater	0.007	0.006	0.095	0.081	0.088	0.010
	<i>S. montevidensis</i> +soil+wastewater	0.007	0.014	0.095	0.189	0.142	0.067
	<i>S. ovata</i> +soil+wastewater	0.021	0.022	0.284	0.297	0.291	0.010

**Appendix B.8 Treatment of phosphorus from domestic wastewater by *E. cordifolius*, *S. ovata* and *S. montevicensis* under soil conditions (Cont.)**

Days	Treatments	OD		Phosphate concentration (mg L <sup>-1</sup> )		Average	SD
		I	II	I	II		
9	Wastewater	0.024	0.024	0.324	0.324	0.324	0.000
	Wastewater+soil	0.021	0.022	0.284	0.297	0.291	0.010
	<i>E. cordifolius</i> +soil+wastewater	0.007	0.004	0.095	0.054	0.074	0.029
	<i>S. montevicensis</i> +soil+wastewater	0.000	0.000	0.000	0.000	0.000	0.000
	<i>S. ovata</i> +soil+wastewater	0.017	0.017	0.230	0.230	0.230	0.000
12	Wastewater	0.020	0.020	0.270	0.270	0.270	0.000
	Wastewater+soil	0.016	0.015	0.216	0.203	0.209	0.010
	<i>E. cordifolius</i> +soil+wastewater	0.005	0.002	0.068	0.027	0.047	0.029
	<i>S. montevicensis</i> +soil+wastewater	0.000	0.000	0.000	0.000	0.000	0.000
	<i>S. ovata</i> +soil+wastewater	0.012	0.010	0.162	0.135	0.149	0.019

**Appendix B.9 Remaining phosphate concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 1**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.730	0.818	0.730	0.892	1.000	0.892	0.928	0.062
	Soil+wastewater	0.730	0.818	0.730	0.892	1.000	0.892	0.928	0.062
	<i>E. cordifolius</i> +soil+wastewater	0.730	0.818	0.730	0.892	1.000	0.892	0.928	0.062
	<i>S. montevicensis</i> +soil+wastewater	0.730	0.818	0.730	0.892	1.000	0.892	0.928	0.062
2	Wastewater	0.327	0.380	0.362	0.400	0.464	0.442	0.436	0.033
	Soil+wastewater	0.135	0.141	0.153	0.165	0.172	0.187	0.175	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.061	0.075	0.058	0.075	0.092	0.071	0.079	0.011
	<i>S. montevicensis</i> +soil+wastewater	0.083	0.088	0.092	0.101	0.108	0.112	0.107	0.006

**Appendix B.9 Remaining phosphate concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 2 (Cont.)**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.580	0.573	0.574	0.709	0.700	0.702	0.704	0.005
	Soil+wastewater	0.580	0.573	0.574	0.709	0.700	0.702	0.704	0.005
	<i>E. cordifolius</i> +soil+wastewater	0.580	0.573	0.574	0.709	0.700	0.702	0.704	0.005
	<i>S. montevicensis</i> +soil+wastewater	0.580	0.573	0.574	0.709	0.700	0.702	0.704	0.005
1	Wastewater	0.490	0.509	0.499	0.599	0.622	0.610	0.610	0.012
	Soil+wastewater	0.206	0.195	0.110	0.252	0.238	0.134	0.208	0.064
	<i>E. cordifolius</i> +soil+wastewater	0.102	0.088	0.034	0.125	0.108	0.042	0.091	0.044
	<i>S. montevicensis</i> +soil+wastewater	0.244	0.027	0.160	0.298	0.330	0.196	0.275	0.070

**Appendix B.9 Remaining phosphate concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 3 (Cont.)**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.494	0.529	0.496	0.604	0.647	0.606	0.619	0.024
	Soil+wastewater	0.494	0.529	0.496	0.604	0.647	0.606	0.619	0.024
	<i>E. cordifolius</i> +soil+wastewater	0.494	0.529	0.496	0.604	0.647	0.606	0.619	0.024
	<i>S. montevicensis</i> +soil+wastewater	0.494	0.529	0.496	0.604	0.647	0.606	0.619	0.024
1	Wastewater	0.404	0.391	0.441	0.494	0.478	0.539	0.504	0.032
	Soil+wastewater	0.176	0.101	0.188	0.215	0.123	0.230	0.189	0.058
	<i>E. cordifolius</i> +soil+wastewater	0.047	0.076	0.038	0.057	0.093	0.046	0.066	0.024
	<i>S. montevicensis</i> +soil+wastewater	0.178	0.109	0.103	0.218	0.133	0.126	0.159	0.051

**Appendix B.9 Remaining phosphate concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 4 (Cont.)**

Hrs	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.493	0.506	0.510	0.603	0.619	0.623	0.615	0.011
	Soil+wastewater	0.493	0.506	0.510	0.603	0.619	0.623	0.615	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.493	0.506	0.510	0.603	0.619	0.623	0.615	0.011
	<i>S. montevicensis</i> +soil+wastewater	0.493	0.506	0.510	0.603	0.619	0.623	0.615	0.011
21	Wastewater	0.473	0.486	0.474	0.578	0.594	0.579	0.584	0.009
	Soil+wastewater	0.164	0.136	0.113	0.200	0.166	0.138	0.168	0.031
	<i>E. cordifolius</i> +soil+wastewater	0.083	0.083	0.057	0.101	0.101	0.070	0.091	0.018
	<i>S. montevicensis</i> +soil+wastewater	0.149	0.157	0.136	0.182	0.192	0.166	0.180	0.013

**Appendix B.9 Remaining phosphate concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 5 (Cont.)**

Hrs	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.669	0.671	0.699	0.818	0.820	0.854	0.831	0.021
	Soil+wastewater	0.669	0.671	0.699	0.818	0.820	0.854	0.831	0.021
	<i>E. cordifolius</i> +soil+wastewater	0.669	0.671	0.699	0.818	0.820	0.854	0.831	0.021
	<i>S. montevicensis</i> +soil+wastewater	0.669	0.671	0.699	0.818	0.820	0.854	0.831	0.021
20	Wastewater	0.608	0.655	0.625	0.743	0.801	0.764	0.769	0.029
	Soil+wastewater	0.162	0.166	0.179	0.198	0.203	0.219	0.207	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.082	0.081	0.083	0.100	0.099	0.101	0.100	0.001
	<i>S. montevicensis</i> +soil+wastewater	0.216	0.292	0.314	0.264	0.357	0.384	0.335	0.063

**Appendix B.10 Treatment of ammonia-nitrogen by *E. cordifolius* and *S. montevicensis* in cycle 5**

Hr	Treatments	NH <sub>3</sub> <sup>+</sup> -N concentration (mg L <sup>-1</sup> )		Average	SD
		I	II		
0	Wastewater	6.17	6.17	6.17	0.00
	Soil+wastewater	6.17	6.17	6.17	0.00
	<i>E. cordifolius</i> +soil+wastewater	6.17	6.17	6.17	0.00
	<i>S. montevicensis</i> +soil+wastewater	6.17	6.17	6.17	0.00
20	Wastewater	5.59	5.59	5.59	0.00
	Soil+wastewater	3.82	4.12	3.97	0.21
	<i>E. cordifolius</i> +soil+wastewater	0.88	0.59	0.74	0.21
	<i>S. montevicensis</i> +soil+wastewater	1.47	1.18	1.32	0.21

**Appendix B.11 Treatment of nitrate-nitrogen by *E. cordifolius* and *S. montevicensis* in cycle 5**

Hr	Treatments	NO <sub>3</sub> <sup>-</sup> -N concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III		
0	Wastewater	1.7	1.7	1.7	1.7	0.0
	Soil+wastewater	1.7	1.7	1.7	1.7	0.0
	<i>E. cordifolius</i> +soil+wastewater	1.7	1.7	1.7	1.7	0.0
	<i>S. montevicensis</i> +soil+wastewater	1.7	1.7	1.7	1.7	0.0
20	Wastewater	0.4	0.7	0.4	0.5	0.2
	Soil+wastewater	0.6	0.5	0.4	0.5	0.1
	<i>E. cordifolius</i> +soil+wastewater	0.5	0.5	0.2	0.4	0.1
	<i>S. montevicensis</i> +soil+wastewater	2.3	3.5	1.0	2.3	1.2

**Appendix B.12 Remaining COD concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 1**

Days	Treatments	OD			COD			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.039	0.037	0.038	115	109	112	112	3
	Soil+wastewater	0.039	0.037	0.038	115	109	112	112	3
	<i>E. cordifolius</i> +soil+wastewater	0.039	0.037	0.038	115	109	112	112	3
	<i>S. montevicensis</i> +soil+wastewater	0.039	0.037	0.038	115	109	112	112	3
2	Wastewater	0.025	0.036	0.032	74	106	95	100	8
	Soil+wastewater	0.029	0.030	0.031	86	89	92	89	3
	<i>E. cordifolius</i> +soil+wastewater	0.024	0.027	0.025	71	80	74	75	5
	<i>S. montevicensis</i> +soil+wastewater	0.015	0.020	0.016	44	59	47	50	8

**Appendix B.12 Remaining COD concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 2 (Cont.)**

Days	Treatments	OD			COD			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.036	0.035	0.037	106	103	109	106	3
	Soil+wastewater	0.036	0.035	0.037	106	103	109	106	3
	<i>E. cordifolius</i> +soil+wastewater	0.036	0.035	0.037	106	103	109	106	3
	<i>S. montevicensis</i> +soil+wastewater	0.036	0.035	0.037	106	103	109	106	3
2	Wastewater	0.017	0.026	0.024	50	77	71	74	4
	Soil+wastewater	0.026	0.026	0.023	77	59	68	68	9
	<i>E. cordifolius</i> +soil+wastewater	0.015	0.012	0.017	44	35	50	43	7
	<i>S. montevicensis</i> +soil+wastewater	0.016	0.015	0.019	47	44	56	49	6

**Appendix B.12 Remaining COD concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 3 (Cont.)**

Days	Treatments	OD			COD			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.032	0.035	0.030	95	103	89	95	7
	Soil+wastewater	0.032	0.035	0.030	95	103	89	95	7
	<i>E. cordifolius</i> +soil+wastewater	0.032	0.035	0.030	95	103	89	95	7
	<i>S. montevicensis</i> +soil+wastewater	0.032	0.035	0.030	95	103	89	95	7
2	Wastewater	0.015	0.019	0.016	44	56	47	49	6
	Soil+wastewater	0.017	0.018	0.019	50	53	56	53	3
	<i>E. cordifolius</i> +soil+wastewater	0.010	0.012	0.011	30	35	32	32	3
	<i>S. montevicensis</i> +soil+wastewater	0.012	0.010	0.015	35	30	44	36	7

**Appendix B.12 Remaining COD concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 4 (Cont.)**

Days	Treatments	OD			COD			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.032	0.030	0.035	95	89	103	95	7
	Soil+wastewater	0.032	0.030	0.035	95	89	103	95	7
	<i>E. cordifolius</i> +soil+wastewater	0.032	0.030	0.035	95	89	103	95	7
	<i>S. montevicensis</i> +soil+wastewater	0.032	0.030	0.035	95	89	103	95	7
2	Wastewater	0.018	0.026	0.023	53	77	68	72	6
	Soil+wastewater	0.030	0.024	0.019	89	71	56	64	10
	<i>E. cordifolius</i> +soil+wastewater	0.015	0.017	0.016	44	50	47	47	3
	<i>S. montevicensis</i> +soil+wastewater	0.030	0.014	0.025	89	41	74	82	11

**Appendix B.12 Remaining COD concentration in domestic wastewater treated with *E. cordifolius* and *S. montevicensis* after adding a new amount of domestic wastewater in cycle 5 (Cont.)**

Days	Treatments	OD			COD			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.035	0.035	0.033	103	103	97	101	3
	Soil+wastewater	0.035	0.035	0.033	103	103	97	101	3
	<i>E. cordifolius</i> +soil+wastewater	0.035	0.035	0.033	103	103	97	101	3
	<i>S. montevicensis</i> +soil+wastewater	0.035	0.035	0.033	103	103	97	101	3
2	Wastewater	0.023	0.025	0.020	68	74	59	67	7
	Soil+wastewater	0.023	0.026	0.025	68	77	74	73	5
	<i>E. cordifolius</i> +soil+wastewater	0.019	0.017	0.016	56	50	47	51	5
	<i>S. montevicensis</i> +soil+wastewater	0.029	0.028	0.027	86	83	80	83	3

**Appendix B.13 Effect of sawdust bottom ash to phosphorus removal in domestic wastewater by *E. cordifolius***

Days	Treatments	OD		Phosphate concentration (mg L <sup>-1</sup> )		Average	SD
		I	II	I	II		
0	Wastewater	0.083	0.085	1.781	1.824	1.803	0.030
	1% Sawdust+soil+wastewater	0.080	0.079	1.717	1.695	1.706	0.015
	5% Sawdust+soil+wastewater	0.078	0.082	1.674	1.760	1.717	0.061
	Soil+wastewater	0.078	0.080	1.674	1.717	1.695	0.030
	<i>E. cordifolius</i> +1% sawdust+soil+wastewater	0.081	0.085	1.738	1.824	1.781	0.061
	<i>E. cordifolius</i> +5% sawdust+soil+wastewater	0.079	0.083	1.695	1.781	1.738	0.061
	<i>E. cordifolius</i> +Soil+wastewater	0.080	0.085	1.717	1.824	1.770	0.076
1	Wastewater	0.081	0.084	1.738	1.803	1.770	0.046
	1% Sawdust+soil+wastewater	0.058	0.043	1.245	0.923	1.084	0.228
	5% Sawdust+soil+wastewater	0.048	0.052	1.030	1.116	1.073	0.061
	Soil+wastewater	0.037	0.040	0.794	0.858	0.826	0.046
	<i>E. cordifolius</i> +1% sawdust+soil+wastewater	0.031	0.033	0.665	0.708	0.687	0.030
	<i>E. cordifolius</i> +5% sawdust+soil+wastewater	0.035	0.029	0.751	0.622	0.687	0.091
	<i>E. cordifolius</i> +Soil+wastewater	0.037	0.038	0.794	0.815	0.805	0.015
3	Wastewater	0.069	0.066	1.481	1.416	1.448	0.046
	1% Sawdust+soil+wastewater	0.057	0.038	1.223	0.815	1.019	0.288
	5% Sawdust+soil+wastewater	0.038	0.047	0.815	1.009	0.912	0.137
	Soil+wastewater	0.034	0.029	0.730	0.622	0.676	0.076
	<i>E. cordifolius</i> +1% sawdust+soil+wastewater	0.013	0.011	0.279	0.236	0.258	0.030
	<i>E. cordifolius</i> +5% sawdust+soil+wastewater	0.023	0.015	0.494	0.322	0.408	0.121
	<i>E. cordifolius</i> +Soil+wastewater	0.015	0.018	0.322	0.386	0.354	0.046

**Appendix B.13 Effect of sawdust bottom ash to phosphorus removal in domestic wastewater by *E. cordifolius* (Cont.)**

Days	Treatments	OD		Phosphate concentration (mg L <sup>-1</sup> )		Average	SD
		I	II	I	II		
6	Wastewater	0.053	0.059	1.137	1.266	1.202	0.091
	1% Sawdust+soil+wastewater	0.027	0.023	0.579	0.494	0.536	0.061
	5% Sawdust+soil+wastewater	0.023	0.021	0.494	0.451	0.472	0.030
	Soil+wastewater	0.015	0.019	0.322	0.408	0.365	0.061
	<i>E.cordifolius</i> +1% sawdust+soil+wastewater	0.000	0.000	0.000	0.000	0.000	0.000
	<i>E.cordifolius</i> +5% sawdust+soil+wastewater	0.000	0.000	0.000	0.000	0.000	0.000
	<i>E.cordifolius</i> +Soil+wastewater	0.012	0.006	0.258	0.129	0.193	0.091

**Appendix B.14 Effect of sawdust bottom ash to phosphorus removal in domestic wastewater by *S. montevicensis***

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.665	0.504	0.422	0.893	0.677	0.567	0.712	0.166
	1% Sawdust+soil+wastewater	0.665	0.504	0.422	0.893	0.677	0.567	0.712	0.166
	1% Sawdust+ <i>S. montevicensis</i> +soil+wastewater	0.665	0.504	0.422	0.893	0.677	0.567	0.712	0.166
	<i>S. montevicensis</i> +soil+wastewater	0.665	0.504	0.422	0.893	0.677	0.567	0.712	0.166
	Soil+wastewater	0.665	0.504	0.422	0.893	0.677	0.567	0.712	0.166
1	Wastewater	0.456	0.402	0.411	0.613	0.540	0.552	0.568	0.039
	1% Sawdust+soil+wastewater	0.061	0.078	0.068	0.082	0.105	0.092	0.093	0.016
	1% Sawdust+ <i>S. montevicensis</i> +soil+wastewater	0.070	0.063	0.060	0.094	0.085	0.081	0.087	0.009
	<i>S. montevicensis</i> +soil+wastewater	0.090	0.081	0.086	0.121	0.109	0.115	0.115	0.009
	Soil+wastewater	0.034	0.034	0.048	0.046	0.046	0.064	0.052	0.011
4	Wastewater	0.393	0.329	0.383	0.528	0.442	0.515	0.495	0.046
	1% Sawdust+soil+wastewater	0.030	0.022	0.051	0.040	0.030	0.069	0.046	0.020
	1% Sawdust+ <i>S. montevicensis</i> +soil+wastewater	0.061	0.030	0.058	0.082	0.040	0.078	0.062	0.023
	<i>S. montevicensis</i> +soil+wastewater	0.050	0.032	0.057	0.067	0.043	0.077	0.062	0.017
	Soil+wastewater	0.035	0.029	0.025	0.047	0.039	0.034	0.040	0.006
8	Wastewater	0.348	0.294	0.301	0.467	0.529	0.404	0.467	0.062
	1% Sawdust+soil+wastewater	0.027	0.024	0.039	0.036	0.032	0.052	0.040	0.011
	1% Sawdust+ <i>S. montevicensis</i> +soil+wastewater	0.017	0.015	0.008	0.023	0.020	0.011	0.018	0.006
	<i>S. montevicensis</i> +soil+wastewater	0.014	0.013	0.015	0.019	0.017	0.020	0.019	0.002
	Soil+wastewater	0.024	0.028	0.020	0.032	0.038	0.027	0.032	0.005

**Appendix B.14 Effect of sawdust bottom ash to phosphorus removal in domestic wastewater by *S. montevicensis* (Cont.)**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
12	Wastewater	0.310	0.281	0.245	0.416	0.377	0.329	0.374	0.044
	1% Sawdust+soil+wastewater	0.014	0.014	0.014	0.019	0.019	0.019	0.019	0.000
	1% Sawdust+ <i>S. montevicensis</i> +soil+wastewater	0.013	0.010	0.014	0.017	0.013	0.019	0.016	0.004
	<i>S. montevicensis</i> +soil+wastewater	0.011	0.010	0.017	0.015	0.013	0.023	0.017	0.005
	Soil+wastewater	0.009	0.021	0.024	0.012	0.028	0.032	0.024	0.011
18	Wastewater	0.025	0.159	0.174	0.337	0.214	0.234	0.262	0.066
	1% Sawdust+soil+wastewater	0.014	0.010	0.013	0.019	0.013	0.017	0.016	0.004
	1% Sawdust+ <i>S. montevicensis</i> +soil+wastewater	0.019	0.001	0.013	0.026	0.001	0.017	0.015	0.012
	<i>S. montevicensis</i> +soil+wastewater	0.014	0.009	0.006	0.019	0.012	0.008	0.013	0.005
	Soil+wastewater	0.007	0.015	0.013	0.009	0.020	0.017	0.016	0.006
21	Wastewater	0.233	0.188	0.160	0.313	0.253	0.215	0.260	0.049
	1% Sawdust+soil+wastewater	0.010	0.006	0.013	0.013	0.008	0.017	0.013	0.005
	1% Sawdust+ <i>S. montevicensis</i> +soil+wastewater	0.004	0.003	0.007	0.005	0.004	0.009	0.006	0.003
	<i>S. montevicensis</i> +soil+wastewater	0.004	0.000	0.000	0.005	0.000	0.000	0.002	0.003
	Soil+wastewater	0.004	0.010	0.010	0.005	0.013	0.013	0.011	0.005

**Appendix B.15 Remaining phosphate concentration in domestic wastewater of *E. cordifolius* after adding new domestic wastewater in cycle 1 under soil condition**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.773	0.761	0.723	0.945	0.930	0.884	0.920	0.032
	Soil+wastewater	0.773	0.761	0.723	0.945	0.930	0.884	0.920	0.032
	<i>E. cordifolius</i> +soil+wastewater	0.773	0.761	0.723	0.945	0.930	0.884	0.920	0.032
1	Wastewater	0.752	0.751	0.720	0.919	0.918	0.880	0.906	0.022
	Soil+wastewater	0.215	0.261	0.184	0.263	0.319	0.225	0.269	0.047
	<i>E. cordifolius</i> +soil+wastewater	0.170	0.093	0.173	0.208	0.114	0.211	0.178	0.055
3	Wastewater	0.714	0.747	0.712	0.873	0.913	0.870	0.885	0.024
	Soil+wastewater	0.080	0.098	0.088	0.098	0.120	0.108	0.108	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.031	0.023	0.030	0.038	0.028	0.037	0.034	0.005

**Appendix B.15 Remaining phosphate concentration in domestic wastewater of *E. cordifolius* after adding new domestic wastewater in cycle 2 under soil condition (Cont.)**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.429	0.403	0.409	0.524	0.493	0.500	0.506	0.017
	Soil+wastewater	0.429	0.403	0.409	0.524	0.493	0.500	0.506	0.017
	<i>E. cordifolius</i> +soil+wastewater	0.429	0.403	0.409	0.524	0.493	0.500	0.506	0.017
1	Wastewater	0.353	0.390	0.395	0.431	0.477	0.483	0.464	0.028
	Soil+wastewater	0.111	0.095	0.070	0.136	0.116	0.086	0.112	0.025
	<i>E. cordifolius</i> +soil+wastewater	0.083	0.061	0.089	0.101	0.075	0.109	0.095	0.018

**Appendix B.15 Remaining phosphate concentration in domestic wastewater of *E. cordifolius* after adding new domestic wastewater in cycle 3 under soil condition (Cont.)**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.649	0.648	0.617	0.793	0.792	0.754	0.780	0.022
	Soil+wastewater	0.649	0.648	0.617	0.793	0.792	0.754	0.780	0.022
	<i>E. cordifolius</i> +soil+wastewater	0.649	0.648	0.617	0.793	0.792	0.754	0.780	0.022
1	Wastewater	0.565	0.528	0.479	0.691	0.645	0.586	0.641	0.053
	Soil+wastewater	0.204	0.224	0.188	0.249	0.274	0.230	0.100	0.025
	<i>E. cordifolius</i> +soil+wastewater	0.151	0.065	0.146	0.185	0.079	0.178	0.147	0.059
3	Wastewater	0.541	0.511	0.510	0.661	0.625	0.623	0.636	0.022
	Soil+wastewater	0.107	0.094	0.084	0.131	0.115	0.103	0.116	0.014
	<i>E. cordifolius</i> +soil+wastewater	0.021	0.034	0.018	0.026	0.042	0.022	0.030	0.010

**Appendix B.15 Remaining phosphate concentration in domestic wastewater of *E. cordifolius* after adding new domestic wastewater in cycle 4 under soil condition (Cont.)**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.689	0.730	0.681	0.842	0.892	0.832	0.856	0.032
	Soil+wastewater	0.689	0.730	0.681	0.842	0.892	0.832	0.856	0.032
	<i>E. cordifolius</i> +soil+wastewater	0.689	0.730	0.681	0.842	0.892	0.832	0.856	0.032
1	Wastewater	0.625	0.730	0.659	0.764	0.892	0.806	0.821	0.065
	Soil+wastewater	0.283	0.257	0.254	0.346	0.314	0.310	0.324	0.019
	<i>E. cordifolius</i> +soil+wastewater	0.171	0.093	0.159	0.209	0.114	0.194	0.172	0.051
3	Wastewater	0.612	0.715	0.625	0.748	0.874	0.764	0.180	0.051
	Soil+wastewater	0.104	0.138	0.100	0.127	0.169	0.122	0.139	0.026
	<i>E. cordifolius</i> +soil+wastewater	0.003	0.009	0.003	0.004	0.011	0.004	0.006	0.004

**Appendix B.16 Effect of plant, soil and microorganisms in phosphorus removal from domestic wastewater of cycle 4**

Days	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.689	0.730	0.681	0.842	0.892	0.832	0.856	0.032
	Soil+wastewater	0.689	0.730	0.681	0.842	0.892	0.832	0.856	0.032
	<i>E. cordifolius</i> +soil+wastewater	0.689	0.730	0.681	0.842	0.892	0.832	0.856	0.032
	Sterile soil+wastewater	0.689	0.730	0.681	0.842	0.892	0.832	0.856	0.032
3	Wastewater	0.612	0.715	0.625	0.748	0.874	0.764	0.795	0.069
	Soil+wastewater	0.104	0.138	0.100	0.127	0.169	0.122	0.139	0.026
	<i>E. cordifolius</i> +soil+wastewater	0.003	0.009	0.003	0.004	0.011	0.004	0.006	0.004
	Sterile soil+wastewater	0.158	0.155	0.117	0.193	0.189	0.189	0.191	0.002

**Appendix B.17 Photosynthesis of *E.cordifolius* in control and treatment systems after each treatment cycles**

Days	Treatments	Chlorophyll fluorescence (Fv/Fm)									Average	SD
		Photosynthesis I			Photosynthesis II			Average				
		I	II	III	I	II	III	I	II	III		
Before treatment (Day 0)	<i>E. cordifolius</i> +soil+tap water	0.749	0.710	0.792	0.730	0.763	0.712	0.740	0.737	0.752	0.743	0.008
	<i>E. cordifolius</i> +soil+wastewater	0.824	0.660	0.769	0.816	0.811	0.818	0.820	0.736	0.794	0.783	0.043
After treatment cycle 1	<i>E. cordifolius</i> +soil+tap water	0.709	0.639	0.660	0.667	0.772	0.634	0.688	0.706	0.647	0.680	0.030
	<i>E. cordifolius</i> +soil+wastewater	0.778	0.79	0.79	0.806	0.814	0.766	0.792	0.802	0.778	0.791	0.012
After treatment cycle 2	<i>E. cordifolius</i> +soil+tap water	0.693	0.684	0.769	0.616	0.598	0.694	0.655	0.641	0.732	0.676	0.049
	<i>E. cordifolius</i> +soil+wastewater	0.777	0.768	0.825	0.768	0.787	0.775	0.773	0.778	0.800	0.783	0.015
After treatment cycle 3	<i>E. cordifolius</i> +soil+tap water	0.701	0.719	0.763	0.694	0.585	0.595	0.698	0.652	0.679	0.676	0.023
	<i>E. cordifolius</i> +soil+wastewater	0.797	0.777	0.818	0.758	0.798	0.768	0.791	0.788	0.676	0.791	0.003
After treatment cycle 4	<i>E. cordifolius</i> +soil+tap water	0.691	0.758	0.746	0.691	0.559	0.746	0.691	0.659	0.746	0.699	0.044
	<i>E. cordifolius</i> +soil+wastewater	0.776	0.797	0.800	0.794	0.797	0.796	0.785	0.797	0.798	0.793	0.007

**Appendix B.18 Biomass of *E.cordifolius* before and after four cycles of phosphorus treatment**

Systems	Biomass (g dry weight plant <sup>-1</sup> )									
	Before treatment					After treatment				
	I	II	III	Average	SD	I	II	III	Average	SD
<i>E. cordifolius</i> +soil+tap water	46.60	46.60	46.60	46.60	0.00	37.28	29.51	21.75	29.51	7.77
<i>E. cordifolius</i> +soil+wastewater	46.60	46.60	46.60	46.60	0.00	51.26	55.92	51.26	52.81	2.69

**Appendix B.19 Percentage of carbon, nitrogen, and phosphorus in *E.cordifolius* in control and domestic wastewater after four treatment cycles**

Systems	% Carbon			Average	SD
	I	II	III		
<i>E. cordifolius</i> +soil+tap water	48.27	48.48	47.43	48.06	0.56
<i>E. cordifolius</i> +soil+wastewater	47.68	48.48	50.14	48.77	1.26

Systems	% Nitrogen			Average	SD
	I	II	III		
<i>E. cordifolius</i> +soil+tap water	5.19	5.20	5.81	5.40	0.36
<i>E. cordifolius</i> +soil+wastewater	6.31	7.54	6.14	6.66	0.76

Systems	% Phosphorus			Average	SD
	I	II	III		
<i>E. cordifolius</i> +soil+tap water	0.04	0.04	0.04	0.04	0.00
<i>E. cordifolius</i> +soil+wastewater	0.04	0.04	0.04	0.04	0.00

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment**

Cycle 1	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.730	0.818	0.730	0.892		
	Soil+wastewater	0.730	0.818	0.730	0.892	1.000	0.892	0.928	0.062
	<i>E. cordifolius</i> +soil+wastewater	0.730	0.818	0.730	0.892	1.000	0.892	0.928	0.062
Day 2	Wastewater	0.327	0.380	0.362	0.400	0.464	0.442	0.436	0.033
	Soil+wastewater	0.135	0.141	0.153	0.165	0.172	0.187	0.175	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.061	0.075	0.058	0.075	0.092	0.071	0.079	0.011
Cycle 2	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.580	0.573	0.574	0.709		
	Soil+wastewater	0.580	0.573	0.574	0.709	0.700	0.702	0.704	0.005
	<i>E. cordifolius</i> +soil+wastewater	0.580	0.573	0.574	0.709	0.700	0.702	0.704	0.005
Day 2	Wastewater	0.474	0.485	0.497	0.579	0.593	0.608	0.593	0.014
	Soil+wastewater	0.144	0.165	0.160	0.176	0.202	0.196	0.191	0.013
	<i>E. cordifolius</i> +soil+wastewater	0.051	0.041	0.027	0.062	0.050	0.033	0.048	0.015

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 3	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.494	0.529	0.496	0.604		
	Soil+wastewater	0.494	0.529	0.496	0.604	0.647	0.606	0.619	0.024
	<i>E. cordifolius</i> +soil+wastewater	0.494	0.529	0.496	0.604	0.647	0.606	0.619	0.024
Day 2	Wastewater	0.463	0.446	0.474	0.566	0.545	0.579	0.564	0.017
	Soil+wastewater	0.091	0.095	0.097	0.111	0.116	0.119	0.115	0.004
	<i>E. cordifolius</i> +soil+wastewater	0.033	0.045	0.033	0.040	0.055	0.040	0.045	0.008
Cycle 4	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.493	0.506	0.510	0.603		
	Soil+wastewater	0.493	0.506	0.510	0.603	0.619	0.623	0.615	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.493	0.506	0.510	0.603	0.619	0.623	0.615	0.011
Day 2	Wastewater	0.447	0.465	0.462	0.546	0.568	0.565	0.560	0.012
	Soil+wastewater	0.095	0.107	0.112	0.116	0.131	0.137	0.128	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.039	0.041	0.042	0.048	0.050	0.039	0.046	0.006

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 5	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Hr 0	Wastewater	0.669	0.671	0.699	0.818		
	Soil+wastewater	0.669	0.671	0.699	0.818	0.820	0.854	0.831	0.021
	<i>E. cordifolius</i> +soil+wastewater	0.669	0.671	0.699	0.818	0.820	0.854	0.831	0.021
Hr 20	Wastewater	0.608	0.655	0.625	0.743	0.801	0.764	0.769	0.029
	Soil+wastewater	0.162	0.166	0.179	0.198	0.203	0.219	0.207	0.011
	<i>E. cordifolius</i> +soil+wastewater	0.082	0.081	0.083	0.100	0.099	0.101	0.100	0.001
Cycle 6	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Hr 0	Wastewater	0.524	0.546	0.548	0.641		
	Soil+wastewater	0.524	0.546	0.548	0.641	0.667	0.670	0.659	0.016
	<i>E. cordifolius</i> +soil+wastewater	0.524	0.546	0.548	0.641	0.667	0.670	0.659	0.016
Hr 20	Wastewater	0.502	0.506	0.504	0.614	0.619	0.616	0.616	0.002
	Soil+wastewater	0.164	0.170	0.159	0.200	0.208	0.194	0.201	0.007
	<i>E. cordifolius</i> +soil+wastewater	0.088	0.081	0.088	0.108	0.099	0.108	0.105	0.005

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 7	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Hr 0	Wastewater	0.505	0.521	0.524	0.617		
	Soil+wastewater	0.505	0.521	0.524	0.617	0.637	0.641	0.632	0.012
	<i>E. cordifolius</i> +soil+wastewater	0.505	0.521	0.524	0.617	0.637	0.641	0.632	0.012
Hr 23	Wastewater	0.494	0.476	0.494	0.604	0.582	0.604	0.597	0.013
	Soil+wastewater	0.167	0.175	0.160	0.204	0.214	0.196	0.205	0.009
	<i>E. cordifolius</i> +soil+wastewater	0.081	0.084	0.090	0.099	0.103	0.110	0.104	0.006
Cycle 8	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Hr 0	Wastewater	0.540	0.588	0.546	0.660		
	Soil+wastewater	0.540	0.588	0.546	0.660	0.719	0.667	0.682	0.032
	<i>E. cordifolius</i> +soil+wastewater	0.540	0.588	0.546	0.660	0.719	0.667	0.682	0.032
Hr 23	Wastewater	0.490	0.499	0.516	0.599	0.610	0.631	0.613	0.016
	Soil+wastewater	0.156	0.173	0.181	0.191	0.211	0.221	0.208	0.016
	<i>E. cordifolius</i> +soil+wastewater	0.076	0.084	0.065	0.093	0.103	0.079	0.092	0.012

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 9	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Hr 0	Wastewater	0.574	0.622	0.567	0.702		
	Soil+wastewater	0.574	0.622	0.567	0.702	0.760	0.693	0.718	0.037
	<i>E. cordifolius</i> +soil+wastewater	0.574	0.622	0.567	0.702	0.760	0.693	0.718	0.037
Hr 23	Wastewater	0.538	0.525	0.555	0.658	0.642	0.678	0.659	0.018
	Soil+wastewater	0.195	0.194	0.200	0.238	0.237	0.244	0.240	0.004
	<i>E. cordifolius</i> +soil+wastewater	0.063	0.068	0.072	0.077	0.083	0.088	0.083	0.006
Cycle 10	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Hr 0	Wastewater	0.475	0.552	0.542	0.581		
	Soil+wastewater	0.475	0.552	0.542	0.581	0.675	0.663	0.639	0.051
	<i>E. cordifolius</i> +soil+wastewater	0.475	0.552	0.542	0.581	0.675	0.663	0.639	0.051
Hr 23	Wastewater	0.483	0.488	0.527	0.590	0.597	0.644	0.610	0.029
	Soil+wastewater	0.200	0.197	0.200	0.244	0.241	0.244	0.243	0.002
	<i>E. cordifolius</i> +soil+wastewater	0.072	0.068	0.071	0.088	0.083	0.087	0.086	0.003

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 11	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.782	0.724	0.773	0.956		
	Soil+wastewater	0.782	0.724	0.773	0.956	0.885	0.945	0.929	0.038
	<i>E. cordifolius</i> +soil+wastewater	0.782	0.724	0.773	0.956	0.885	0.945	0.929	0.038
Day 1	Wastewater	0.706	0.717	0.716	0.863	0.876	0.875	0.872	0.007
	Soil+wastewater	0.450	0.472	0.455	0.550	0.577	0.556	0.561	0.014
	<i>E. cordifolius</i> +soil+wastewater	0.087	0.088	0.056	0.106	0.108	0.068	0.094	0.022
Cycle 12	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.780	0.778	0.872	0.953		
	Soil+wastewater	0.780	0.778	0.872	0.953	0.951	1.066	0.990	0.066
	<i>E. cordifolius</i> +soil+wastewater	0.780	0.778	0.872	0.953	0.951	1.066	0.990	0.066
Day 1	Wastewater	0.740	0.733	0.699	0.905	0.896	0.854	0.885	0.027
	Soil+wastewater	0.447	0.486	0.392	0.546	0.594	0.479	0.540	0.058
	<i>E. cordifolius</i> +soil+wastewater	0.085	0.082	0.062	0.104	0.100	0.076	0.093	0.015

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 13	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.737	0.768	0.850	0.901		
	Soil+wastewater	0.737	0.768	0.850	0.901	0.939	1.039	0.960	0.071
	<i>E. cordifolius</i> +soil+wastewater	0.737	0.768	0.850	0.901	0.939	1.039	0.960	0.071
Day 1	Wastewater	0.678	0.764	0.758	0.829	0.934	0.927	0.896	0.059
	Soil+wastewater	0.486	0.524	0.447	0.594	0.641	0.546	0.594	0.047
	<i>E. cordifolius</i> +soil+wastewater	0.084	0.087	0.071	0.103	0.106	0.087	0.099	0.010
Cycle 14	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.753	0.789	0.771	0.920		
	Soil+wastewater	0.753	0.789	0.771	0.920	0.964	0.942	0.942	0.022
	<i>E. cordifolius</i> +soil+wastewater	0.753	0.789	0.771	0.920	0.964	0.942	0.942	0.022
Day 1	Wastewater	0.722	0.762	0.739	0.883	0.931	0.903	0.906	0.025
	Soil+wastewater	0.480	0.522	0.419	0.587	0.638	0.512	0.579	0.063
	<i>E. cordifolius</i> +soil+wastewater	0.079	0.100	0.065	0.097	0.122	0.079	0.099	0.022

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 15	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.831	0.893	0.785	1.016		
	Soil+wastewater	0.831	0.893	0.785	1.016	1.092	0.960	1.022	0.066
	<i>E. cordifolius</i> +soil+wastewater	0.831	0.893	0.785	1.016	1.092	0.960	1.022	0.066
Day 3	Wastewater	0.669	0.635	0.727	0.818	0.776	0.889	0.828	0.057
	Soil+wastewater	0.446	0.466	0.335	0.545	0.570	0.409	0.508	0.086
	<i>E. cordifolius</i> +soil+wastewater	0.044	0.061	0.045	0.054	0.075	0.055	0.061	0.012
Cycle 16	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.609	0.618	0.685	0.744		
	Soil+wastewater	0.609	0.618	0.685	0.744	0.755	0.837	0.779	0.051
	<i>E. cordifolius</i> +soil+wastewater	0.609	0.618	0.685	0.744	0.755	0.837	0.779	0.051
Day 1	Wastewater	0.577	0.588	0.604	0.705	0.719	0.738	0.721	0.017
	Soil+wastewater	0.462	0.429	0.469	0.565	0.524	0.573	0.554	0.026
	<i>E. cordifolius</i> +soil+wastewater	0.079	0.086	0.081	0.097	0.105	0.099	0.100	0.004

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 17	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.673	0.660	0.682	0.823		
	Soil+wastewater	0.673	0.660	0.682	0.823	0.807	0.834	0.821	0.014
	<i>E. cordifolius</i> +soil+wastewater	0.673	0.660	0.682	0.823	0.807	0.834	0.821	0.014
Day 1	Wastewater	0.521	0.583	0.572	0.637	0.713	0.699	0.683	0.040
	Soil+wastewater	0.317	0.388	0.395	0.387	0.474	0.483	0.448	0.053
	<i>E. cordifolius</i> +soil+wastewater	0.095	0.102	0.048	0.116	0.125	0.059	0.100	0.036
Cycle 18	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.641	0.607	0.673	0.784		
	Soil+wastewater	0.641	0.607	0.673	0.784	0.742	0.823	0.783	0.040
	<i>E. cordifolius</i> +soil+wastewater	0.641	0.607	0.673	0.784	0.742	0.823	0.783	0.040
Day 1	Wastewater	0.637	0.606	0.640	0.779	0.741	0.782	0.767	0.023
	Soil+wastewater	0.413	0.525	0.474	0.505	0.642	0.579	0.575	0.069
	<i>E. cordifolius</i> +soil+wastewater	0.059	0.050	0.064	0.072	0.061	0.078	0.070	0.009

**Appendix B.20 The relationship between plants, microorganisms and soil in phosphorus treatment (Cont.)**

Cycle 19	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.738	0.644	0.660	0.902		
	Soil+wastewater	0.738	0.644	0.660	0.902	0.787	0.807	0.832	0.061
	<i>E. cordifolius</i> +soil+wastewater	0.738	0.644	0.660	0.902	0.787	0.807	0.832	0.061
Day 1	Wastewater	0.649	0.630	0.655	0.793	0.770	0.801	0.788	0.016
	Soil+wastewater	0.462	0.518	0.471	0.565	0.633	0.576	0.591	0.037
	<i>E. cordifolius</i> +soil+wastewater	0.064	0.077	0.099	0.078	0.094	0.121	0.098	0.022
Cycle 20	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
		Day 0	Wastewater	0.685	0.633	0.633	0.837		
	Soil+wastewater	0.685	0.633	0.633	0.837	0.774	0.774	0.795	0.037
	<i>E. cordifolius</i> +soil+wastewater	0.685	0.633	0.633	0.837	0.774	0.774	0.795	0.037
Day 1	Wastewater	0.581	0.623	0.623	0.710	0.762	0.762	0.744	0.030
	Soil+wastewater	0.469	0.494	0.459	0.573	0.604	0.561	0.579	0.022
	<i>E. cordifolius</i> +soil+wastewater	0.093	0.094	0.051	0.114	0.115	0.062	0.097	0.030

**Appendix B.21 Percentage of carbon, nitrogen, and phosphorus in *E.cordifolius* in the control and treatment (domestic wastewater) after the 20 cycles**

Systems	% Carbon			Average	SD
	I	II	III		
<i>E. cordifolius</i> +soil+tap water	36.20	33.50	35.80	35.17	1.46
<i>E. cordifolius</i> +soil+wastewater	36.00	37.20	34.50	35.90	1.35
Systems	% Nitrogen			Average	SD
	I	II	III		
<i>E. cordifolius</i> +soil+tap water	1.23	1.26	1.22	1.24	0.02
<i>E. cordifolius</i> +soil+wastewater	1.68	2.71	1.69	2.03	0.59
Systems	% Phosphorus			Average	SD
	I	II	III		
<i>E. cordifolius</i> +soil+tap water	0.71	0.67	0.75	0.71	0.04
<i>E. cordifolius</i> +soil+wastewater	1.27	1.35	1.24	1.29	0.06

**Appendix B.22 Biomass of *E.cordifolius* before and after phosphorus treatment from domestic wastewater for 20 cycles**

Systems	Biomass (g dry weight plant <sup>-1</sup> )									
	Before treatment					After treatment				
	I	II	III	Average	SD	I	II	III	Average	SD
<i>E. cordifolius</i> +soil+tap water	110.48	110.48	110.48	110.48	0.00	114.06	110.91	110.19	111.73	2.06
<i>E. cordifolius</i> +soil+wastewater	110.48	110.48	110.48	110.48	0.00	142.90	138.76	146.54	142.74	3.89

**Appendix B.23 Efficiency of phosphate removal in domestic wastewater by *E.cordifolius* augmented with microorganisms**

Hrs	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
0	Wastewater	0.795	0.692	0.700	0.972	0.846	0.856	0.891	0.070
	Plant+soil+wastewater	0.656	0.652	0.674	0.802	0.797	0.824	0.808	0.014
	Plant+soil+wastewater+ <i>P.putida</i>	0.804	0.792	0.785	0.983	0.968	0.960	0.970	0.012
	Plant+soil+wastewater+ <i>F. oryzihabitans</i>	0.855	0.816	0.838	1.045	0.997	1.024	1.022	0.024
	Plant+soil+wastewater+ <i>P.putida</i> + <i>F. oryzihabitans</i>	0.812	0.854	0.851	0.993	1.044	1.040	1.026	0.029
1	Wastewater	0.663	0.669	0.656	0.811	0.818	0.802	0.810	0.011
	Plant+soil+wastewater	0.585	0.572	0.589	0.715	0.699	0.720	0.711	0.011
	Plant+soil+wastewater+ <i>P.putida</i>	0.612	0.609	0.609	0.748	0.744	0.746	0.746	0.003
	Plant+soil+wastewater+ <i>F. oryzihabitans</i>	0.618	0.624	0.624	0.756	0.763	0.749	0.756	0.010
	Plant+soil+wastewater+ <i>P.putida</i> + <i>F. oryzihabitans</i>	0.588	0.598	0.578	0.720	0.731	0.707	0.719	0.017
6	Wastewater	0.628	0.612	0.647	0.769	0.748	0.791	0.769	0.030
	Plant+soil+wastewater	0.395	0.385	0.402	0.483	0.471	0.491	0.482	0.010
	Plant+soil+wastewater+ <i>P.putida</i>	0.328	0.329	0.327	0.402	0.402	0.400	0.401	0.002
	Plant+soil+wastewater+ <i>F. oryzihabitans</i>	0.276	0.270	0.260	0.337	0.330	0.318	0.328	0.010
	Plant+soil+wastewater+ <i>P.putida</i> + <i>F. oryzihabitans</i>	0.294	0.345	0.349	0.359	0.422	0.427	0.403	0.037

**Appendix B.23 Efficiency of phosphate removal in domestic wastewater by *E.cordifolius* augmented with microorganisms**

Hrs	Treatments	OD			Phosphate concentration (mg L <sup>-1</sup> )			Average	SD
		I	II	III	I	II	III		
12	Wastewater	0.608	0.610	0.608	0.744	0.746	0.743	0.744	0.002
	Plant+soil+wastewater	0.238	0.276	0.279	0.291	0.337	0.341	0.323	0.028
	Plant+soil+wastewater+ <i>P.putida</i>	0.135	0.133	0.137	0.165	0.163	0.167	0.165	0.003
	Plant+soil+wastewater+ <i>F. oryzihabitans</i>	0.230	0.231	0.231	0.281	0.282	0.283	0.282	0.001
	Plant+soil+wastewater+ <i>P.putida</i> + <i>F. oryzihabitans</i>	0.234	0.231	0.235	0.286	0.282	0.287	0.285	0.003
14	Wastewater	0.584	0.589	0.579	0.715	0.720	0.708	0.714	0.009
	Plant+soil+wastewater	0.161	0.193	0.189	0.197	0.236	0.231	0.221	0.021
	Plant+soil+wastewater+ <i>P.putida</i>	0.077	0.064	0.068	0.094	0.078	0.083	0.085	0.008
	Plant+soil+wastewater+ <i>F. oryzihabitans</i>	0.136	0.133	0.096	0.166	0.163	0.117	0.149	0.027
	Plant+soil+wastewater+ <i>P.putida</i> + <i>F. oryzihabitans</i>	0.096	0.070	0.071	0.117	0.086	0.087	0.097	0.018
17	Wastewater	0.557	0.557	0.555	0.682	0.681	0.678	0.680	0.002
	Plant+soil+wastewater	0.057	0.070	0.065	0.070	0.086	0.079	0.078	0.008
	Plant+soil+wastewater+ <i>P.putida</i>	0.036	0.033	0.059	0.044	0.040	0.072	0.052	0.017
	Plant+soil+wastewater+ <i>F. oryzihabitans</i>	0.060	0.078	0.067	0.073	0.095	0.082	0.084	0.011
	Plant+soil+wastewater+ <i>P.putida</i> + <i>F. oryzihabitans</i>	0.043	0.071	0.086	0.053	0.087	0.105	0.081	0.027