

Supplementary material 1. Pearson correlation matrix for germinated *Senna reticulata* species - 360 mg.kg⁻¹

	L1Ca	R1Ca	S1Ca	L1Fe	R1Fe	S1Fe	L1K	R1K	S1K	L1Mg	R1Mg	S1Mg	L1Mn	R1Mn	S1Mn	L1Na	R1Na	S1Na
L1Ca	1.000																	
R1Ca	0.105 p=0.788	1.000																
S1Ca	0.578 p=0.103	0.285 p=0.457	1.000															
L1Fe	0.464 p=0.209	-0.065 p=0.867	0.682 p=0.043	1.000														
R1Fe	0.428 p=0.250	0.065 p=0.869	0.203 p=0.601	0.068 p=0.862	1.000													
S1Fe	0.344 p=0.365	0.271 p=0.481	0.563 p=0.114	0.802 p=0.009	0.176 p=0.651	1.000												
L1K	-0.076 p=0.847	-0.061 p=0.876	-0.319 p=0.403	-0.074 p=0.850	0.053 p=0.892	-0.191 p=0.622	1.000											
R1K	-0.445 p=0.230	-0.138 p=0.723	-0.394 p=0.294	-0.422 p=0.258	-0.649 p=0.059	-0.381 p=0.312	-0.560 p=0.117	1.000										
S1K	-0.058 p=0.882	-0.055 p=0.889	0.034 p=0.932	0.434 p=0.243	-0.624 p=0.072	0.481 p=0.190	-0.314 p=0.411	0.492 p=0.179	1.000									
L1Mg	-0.370 p=0.327	-0.254 p=0.510	-0.237 p=0.539	-0.499 p=0.171	-0.666 p=0.050	-0.741 p=0.022	0.011 p=0.978	0.597 p=0.089	0.020 p=0.960	1.000								
R1Mg	-0.181 p=0.641	0.609 p=0.081	-0.310 p=0.417	-0.588 p=0.096	-0.333 p=0.382	-0.341 p=0.369	0.370 p=0.327	0.119 p=0.760	-0.117 p=0.764	0.351 p=0.355	1.000							
S1Mg	0.005 p=0.989	0.326 p=0.392	0.254 p=0.510	0.565 p=0.113	-0.029 p=0.942	0.647 p=0.060	0.409 p=0.274	-0.595 p=0.091	0.140 p=0.719	-0.533 p=0.139	0.049 p=0.901	1.000						
L1Mn	0.052 p=0.894	-0.012 p=0.975	-0.185 p=0.634	-0.362 p=0.338	0.145 p=0.711	-0.114 p=0.770	-0.743 p=0.022	0.489 p=0.181	-0.017 p=0.966	-0.093 p=0.811	-0.134 p=0.730	-0.493 p=0.177	1.000					
R1Mn	-0.438 p=0.239	-0.495 p=0.176	0.048 p=0.903	-0.072 p=0.854	-0.284 p=0.460	-0.263 p=0.494	0.000 p=1.00	0.239 p=0.535	0.059 p=0.881	0.601 p=0.087	-0.208 p=0.591	-0.324 p=0.395	-0.337 p=0.375	1.000				
S1Mn	-0.374 p=0.321	-0.681 p=0.043	-0.251 p=0.515	0.187 p=0.629	-0.212 p=0.585	-0.068 p=0.861	-0.263 p=0.494	0.319 p=0.403	0.220 p=0.570	0.039 p=0.920	-0.678 p=0.045	0.039 p=0.920	-0.039 p=0.555	0.228 p=0.634	1.000			
L1Na	0.432 p=0.245	-0.122 p=0.754	-0.181 p=0.640	-0.058 p=0.881	0.657 p=0.054	-0.174 p=0.655	0.620 p=0.075	-0.601 p=0.087	-0.514 p=0.157	-0.315 p=0.409	0.000 p=1.00	-0.055 p=0.888	-0.270 p=0.482	-0.273 p=0.477	-0.296 p=0.439	1.000		
R1Na	0.289 p=0.450	0.324 p=0.394	0.296 p=0.439	0.703 p=0.035	0.284 p=0.459	0.762 p=0.017	0.057 p=0.883	-0.410 p=0.273	0.343 p=0.366	-0.788 p=0.012	0.599 p=0.451	-0.289 p=0.088	-0.257 p=0.505	-0.481 p=0.190	-0.003 p=0.993	0.199 p=0.608	1.000	
S1Na	0.277 p=0.471	0.131 p=0.738	0.450 p=0.224	0.877 p=0.002	0.216 p=0.577	0.812 p=0.008	0.192 p=0.620	-0.582 p=0.100	0.304 p=0.426	-0.708 p=0.033	-0.414 p=0.268	0.762 p=0.017	-0.483 p=0.187	-0.247 p=0.521	0.091 p=0.815	0.140 p=0.720	0.905 p=0.001	1.000 p= -

Legend: L: Leaf. R:Root. S: Stem; 1: CO₂ atmosphere at 360 mg.kg⁻¹; Significances <0.05 are in bold

Supplementary material 2. Pearson correlation matrix for germinated *Senna reticulata* species - 720 mg.kg⁻¹

	L2 Ca	R2 Ca	S2 Ca	L2 Fe	R2 Fe	S2 Fe	L2 K	R2 K	S2 K	L2 Mg	R2 Mg	S2 Mg	L2 Mn	R2 Mn	S2 Mn	L2 Na	R2 Na	S2 Na
L2 Ca	1.000																	
	p= -																	
R2 Ca	-0.166	1.000																
	p=0.670	p= -																
S2 Ca	0.545	-0.239	1.000															
	p=0.129	p=0.536	p= -															
L2 Fe	-0.697	-0.075	-0.474	1.000														
	p=0.037	p=0.848	p=0.198	p= -														
R2 Fe	-0.194	-0.341	0.214	-0.317	1.000													
	p=0.616	p=0.370	p=0.581	p=0.406	p= -													
S2 Fe	0.284	0.674	-0.109	-0.591	-0.281	1.000												
	p=0.458	p=0.046	p=0.781	p=0.094	p=0.463	p= -												
L2 K	0.153	-0.375	0.016	-0.405	0.409	0.103	1.000											
	p=0.695	p=0.320	p=0.968	p=0.280	p=0.275	p=0.791	p= -											
R2 K	0.429	0.080	-0.327	-0.593	0.025	0.618	0.321	1.000										
	p=0.250	p=0.838	p=0.390	p=0.092	p=0.949	p=0.076	p=0.400	p= -										
S2 K	-0.311	-0.077	-0.462	-0.022	0.593	-0.123	0.282	0.370	1.000									
	p=0.415	p=0.843	p=0.210	p=0.954	p=0.093	p=0.754	p=0.463	p=0.327	p= -									
L2 Mg	0.697	0.200	0.196	-0.577	-0.144	0.385	-0.014	0.475	-0.269	1.000								
	p=0.037	p=0.607	p=0.614	p=0.104	p=0.712	p=0.306	p=0.971	p=0.196	p=0.483	p= -								
R2 Mg	-0.300	-0.212	0.217	0.047	0.526	-0.419	0.394	-0.536	0.084	-0.241	1.000							
	p=0.432	p=0.584	p=0.575	p=0.904	p=0.145	p=0.261	p=0.294	p=0.137	p=0.830	p=0.533	p= -							
S2 Mg	0.126	-0.027	-0.303	0.049	-0.411	0.331	0.275	0.437	-0.069	0.030	-0.646	1.000						
	p=0.747	p=0.946	p=0.428	p=0.901	p=0.271	p=0.385	p=0.474	p=0.240	p=0.860	p=0.940	p=0.060	p= -						
L2 Mn	0.343	-0.449	-0.147	-0.290	-0.048	0.242	0.381	0.690	0.017	0.176	-0.530	0.682	1.000					
	p=0.366	p=0.226	p=0.705	p=0.449	p=0.902	p=0.530	p=0.311	p=0.040	p=0.965	p=0.651	p=0.142	p=0.043	p= -					
R2 Mn	-0.128	-0.372	0.000	-0.176	0.288	0.102	0.831	0.098	0.106	-0.426	0.353	0.296	0.398	1.000				
	p=0.743	p=0.325	p=1.00	p=0.651	p=0.452	p=0.795	p=0.005	p=0.802	p=0.785	p=0.253	p=0.351	p=0.439	p=0.289	p= -				
S2 Mn	0.028	-0.268	-0.043	-0.472	0.814	0.003	0.626	0.474	0.627	0.222	0.237	0.015	0.309	0.314	1.000			
	p=0.943	p=0.485	p=0.913	p=0.200	p=0.008	p=0.993	p=0.071	p=0.197	p=0.071	p=0.567	p=0.540	p=0.969	p=0.418	p=0.411	p= -			
L2 Na	-0.323	-0.159	-0.379	0.643	-0.280	-0.460	-0.596	-0.245	0.119	-0.420	-0.132	-0.286	-0.161	-0.378	-0.517	1.000		
	p=0.396	p=0.682	p=0.315	p=0.062	p=0.465	p=0.213	p=0.090	p=0.525	p=0.761	p=0.261	p=0.736	p=0.455	p=0.680	p=0.316	p=0.154	p= -		
R2 Na	-0.471	-0.603	-0.119	0.609	0.339	-0.879	-0.125	-0.473	0.386	-0.656	0.350	-0.366	-0.192	0.014	-0.015	0.679	1.000	
	p=0.200	p=0.086	p=0.760	p=0.082	p=0.372	p=0.002	p=0.749	p=0.198	p=0.305	p=0.055	p=0.357	p=0.332	p=0.622	p=0.971	p=0.969	p=0.044	p= -	
S2 Na	-0.635	-0.115	-0.218	0.760	-0.087	-0.472	-0.069	-0.572	0.158	-0.847	0.091	0.217	-0.254	0.207	-0.312	0.317	0.557	1.000
	p=0.066	p=0.768	p=0.573	p=0.017	p=0.824	p=0.199	p=0.861	p=0.107	p=0.684	p=0.004	p=0.816	p=0.574	p=0.510	p=0.593	p=0.414	p=0.406	p=0.119	p= -

Legend: L: Leaf. R:Root. S: Stem; 1: CO₂ atmosphere at 720 mg.kg⁻¹; Significances <0.05 are in bold

Supplementary material 3. Single Factor Anova for germinated *Senna reticulata* species

Elements	$F_{calculated}$	$P\text{-value}$	$F_{critical}$	Elements	$F_{calculated}$	$P\text{-value}$	$F_{critical}$
Ca				Fe			
F	2.81	0.113	4.49	F	1.02	0.327	4.49
R	3831	$1.80 \cdot 10^{-20}$	4.49	R	301.4	$8.37 \cdot 10^{-12}$	4.49
C	216.9	$1.00 \cdot 10^{-10}$	4.49	C	779.5	$5.31 \cdot 10^{-15}$	4.49
K				Mg			
F	763.5	$6.24 \cdot 10^{-15}$	4.49	F	60.04	$8.37 \cdot 10^{-7}$	4.49
R	1170	$2.17 \cdot 10^{-16}$	4.49	R	10710	$4.82 \cdot 10^{-24}$	4.49
C	17.90	0.0006	4.49	C	25.14	0.0001	4.49
Mn				Na			
F	19.78	0.0004	4.49	F	1109	$3.31 \cdot 10^{-16}$	4.49
R	0.079	0.782	4.49	R	4222	$8.12 \cdot 10^{-21}$	4.49
C	70.47	$2.95 \cdot 10^{-7}$	4.49	C	1601	$1.81 \cdot 10^{-17}$	4.49

Legend: L: Leaf;.R:Root; S: Stem; In bold are the means that differed significantly ($F_{calculated} > F_{critical}$)