

Appendix

Table 7. EXP I: Pearson Correlation Coefficients (PCC) and partial Pearson Correlation Coefficients (PPCC) for correlations among mean lamina size (LS) and its lamina FA (FA₁, FA₂ and FA₁₀) and among-leaf efficient of variation (LF-CV) for plants at three densities under two soil conditions at three stages of growth. * P < 0.10, ** P < 0.05. *** P < 0.01, **** P < 0.001.

Soil	Density	Trait	Stage Coefficient	30 d		50 d		70 d		
				LS	LF-CV	LS	LF-CV	LS	LF-CV	
Infertile	Low	LF-CV	PCC	-0.347		-0.313		0.038		
			FA ₁	PCC	-0.117	-0.476*	-0.197	0.342	0.238	-0.141
			PPCC		-0.555*		0.301		-0.155	
		FA ₂	PCC	-0.493*	-0.284	-0.525**	0.430*	-0.23	0.041	
			PPCC		-0.557*		0.329		0.053	
		FA ₁₀	PCC	0.060	-0.182	-0.242	0.422*	-0.103	-0.061	
	PPCC			-0.172		0.375		-0.057		
	Medium	LF-CV	PCC	-0.341		-0.254		-0.435*		
			FA ₁	PCC	0.245	-0.510*	0.321	0.139	0.190	0.195
			PPCC		-0.468		0.241		0.314	
		FA ₂	PCC	-0.102	-0.432	0.036	0.275	-0.119	0.154	
			PPCC		-0.499*		0.294		0.114	
		FA ₁₀	PCC	0.022	-0.460	0.277	0.308	0.033	0.356	
	PPCC			-0.481		0.407		0.412		
	High	LF-CV	PCC	0.182		-0.122		0.123		
			FA ₁	PCC	0.131	-0.079	0.320	0.102	0.128	0.020
			PPCC		-0.106		0.150		0.004	
		FA ₂	PCC	-0.045	-0.159	0.176	0.120	-0.173	-0.040	
			PPCC		-0.153		0.145		-0.019	
		FA ₁₀	PCC	0.123	-0.100	0.208	0.078	-0.275	-0.315	
	PPCC			-0.125		0.106		-0.295		
	Fertile	Low	LF-CV	PCC	0.047		0.214		-0.231	
				FA ₁	PCC	0.317	0.235	0.274	0.139	0.527**
				PPCC		0.263		0.086		0.239
FA ₂			PCC	-0.083	0.192	-0.333	0.099	0.014	0.370	
			PPCC		0.189		0.185		0.383	
FA ₁₀			PCC	0.134	0.286	0.361	0.091	0.570**	-0.095	
		PPCC		0.295		0.016		0.046		
Medium		LF-CV	PCC	0.256		0.234		-0.610***		
			FA ₁	PCC	-0.004	-0.622**	0.581**	0.327	-0.039	-0.109
			PPCC		-0.642***		0.242		-0.174	
		FA ₂	PCC	-0.322	-0.700***	0.331	0.309	-0.585**	0.282	
			PPCC		-0.374***		0.252		-0.148	
		FA ₁₀	PCC	-0.225	-0.398	0.502**	0.357	-0.213	-0.087	
PPCC				-0.361		0.285		-0.298		
High		LF-CV	PCC	0.341		0.177		-0.402*		
			FA ₁	PCC	0.338	0.258	0.541**	0.146	0.757****	-0.181
			PPCC		0.161		0.061		0.209	
		FA ₂	PCC	-0.136	0.397	0.106	0.159	0.131	0.196	
			PPCC		0.476*		0.144		0.274	
		FA ₁₀	PCC	0.381	0.356	0.496**	0.260	0.629***	-0.246	
PPCC				0.260		0.201		0.010		

Table 8. EXP I: Pearson Correlation Coefficients (PCC) and partial Pearson Correlation Coefficients (PPCC) for correlations of plasticity (in response to medium vs. low density [M-L RDPI_s], high vs. low density [H-L RDPI_s] and high vs. medium density [H-M RDPI_s]) and efficient of among-individual variation (IN-CV) of lamina size with its mean value (LS), lamina FA (FA₁, FA₂ and FA₁₀) and among-leaf efficient of variation (LF-CV) across all stages and soils at three densities. * P < 0.10, ** P < 0.05. *** P < 0.01.

Density	Trait	Coefficient	LS	FA ₁	FA ₂	FA ₁₀	LF-CV	IN-CV
Low	IN-CV	PCC	0.503	0.676	0.718	0.558	0.112*	
		PPCC		0.581	0.686	0.350	0.551	
	H-L RDPI _s	PCC	-0.952***	-0.822**	-0.214	-0.926***	0.365	-0.478
		PPCC		0.184	0.258	0.024	-0.664	0.003
	M-L RDPI _s	PCC	-0.912**	-0.881**	-0.392	-0.955***	0.461	-0.342
		PPCC		-0.366	-0.295	-0.721	-0.149	0.329
Medium	IN-CV	PCC	-0.751*	-0.700	-0.257	-0.640	0.366	
		PPCC		-0.307	-0.352	0.091	-0.370	
	H-M RDPI _s	PCC	-0.237	0.024	0.318	-0.053	0.035	0.313
		PPCC		0.317	0.336	0.351	-0.198	0.211
	M-L RDPI _s	PCC	-0.843**	-0.718	-0.153	-0.868**	0.499	0.488
		PPCC		-0.233	-0.232	-0.484	-0.277	-0.409
High	IN-CV	PCC	0.704	0.434	-0.153	0.681	-0.327	
		PPCC		-0.282	-0.229	0.125	0.318	
	H-L RDPI _s	PCC	-0.920***	-0.680	0.051	-0.865**	0.559	-0.912**
		PPCC		0.200	0.165	-0.129	-0.288	-0.950**
	H-M RDPI _s	PCC	-0.126	0.009	0.160	0.008	0.022	-0.343
		PPCC		0.179	0.163	0.313	-0.092	-0.362
Infertile	IN-CV	PCC	0.313	0.234	0.159	0.272	0.247	
		PPCC		0.038	0.082	0.047	0.220	
	H-L RDPI _s	PCC	-0.904***	-0.380	0.020	-0.510	0.116	-0.389
		PPCC		0.675*	0.630*	0.731**	0.543	-0.262
	M-L RDPI _s	PCC	-0.090	-0.226	-0.224	-0.162	-0.180	-0.096
		PPCC		-0.223	-0.209	-0.147	-0.171	-0.072
Fertile	IN-CV	PCC	-0.008	-0.019	-0.015	0.008	-0.319	
		PPCC		-0.039	-0.013	0.071	-0.783**	
	H-M RDPI _s	PCC	-0.626*	-0.650*	-0.342	-0.661*	0.626*	-0.556
		PPCC		-0.225	-0.200	-0.292	0.174	-0.720**
	M-L RDPI _s	PCC	-0.666*	-0.650*	-0.373	-0.665*	0.719**	-0.225
		PPCC		-0.056	-0.235	-0.094	0.365	-0.309
All	IN-CV	PCC	0.169	0.096	-0.028	0.183	-0.110	
		PPCC		-0.080	-0.050	0.071	-0.009	
	H-L RDPI _s	PCC	-0.722***	-0.526**	0.031	-0.657***	0.346	-0.586**
		PPCC		0.189	0.178	0.089	-0.171	-0.681***
	H-M RDPI _s	PCC	-0.526**	-0.471**	-0.136	-0.545**	0.341	-0.288
		PPCC		-0.073	-0.082	-0.176	0.030	-0.238

Table 9. EXP II: Correlations of mean values of lamina size (LS), petiole length (PL), petiole angle (PA) with lamina FA (FA₁, FA₂ and FA₁₀) and the among-individual coefficient of variation (IN-CV) and plasticity (in response to medium vs. low density [M-L RDPI_s], high vs. low density [H-L RDPI_s] and high vs. medium density [H-M RDPI_s]) of the three traits for plants at three densities of two growth stages. “+” represents significant positive correlation, and “-” represents significant negative correlation; * P < 0.10, ** P < 0.05. *** P < 0.01.

Density	Trait	LS		PL		PA	
		50 d	70 d	50 d	70 d	50 d	70 d
Low	FA ₁						
	FA ₂						+***
	FA ₁₀						
	IN-CV	+*	_-***		_-***		
	M-L RDPI _s		_-**				
	H-L RDPI _s		_-**	_-**	+*	_-**	+**
Medium	FA ₁	+***			_-*	+**	+**
	FA ₂	+**	_-*			+**	+*
	FA ₁₀	+**				+***	+**
	IN-CV		_-**	_-*	_-*		
	M-L RDPI _s						+**
	H-M RDPI _s					_-**	
High	FA ₁	+***			_-*		+**
	FA ₂	+**			_-**		
	FA ₁₀	+***					+**
	IN-CV	+*		_-*	_-**	+*	
	H-M RDPI _s	+***				+*	
	H-L RDPI _s						

Table 11. EXP III: Pearson Correlation Coefficients (PCC) and partial Pearson Correlation Coefficients (PPCC) for correlations among cotyledon size (CS) and its FA (FA₁, FA₂ and FA₁₀) and among-individual coefficient of variation (IN-CV) under full light, shade and all treatments. * P < 0.10, ** P < 0.05. *** P < 0.01, **** P < 0.001.

Variable	Coefficient	CS		IN-CV	
		Full	Shallow	Shade	Deep
FA ₁	PCC	-0.402	-0.040	-0.620*	-0.271
	PPCC		0.923***		0.903***
FA ₂	PCC	0.828***	0.899***	0.796**	0.887***
	PPCC		0.626*		0.651*
FA ₁₀	PCC	0.499	0.503	0.221	0.390
	PPCC		0.129		0.497
IN-CV	PCC	0.921****		0.910****	
		Shade		Deep	
FA ₁	PCC	-0.706*	-0.434	-0.554	-0.241
	PPCC		0.881***		0.881***
FA ₂	PCC	0.665*	0.816**	0.676**	0.845***
	PPCC		0.727*		0.794*
FA ₁₀	PCC	0.003	0.151	0.174	0.213
	PPCC		0.412		0.142
IN-CV	PCC	0.933****		0.928****	
		Both		Both	
FA ₁	PCC	-0.573**	-0.236	-0.584**	-0.248
	PPCC		0.883****		0.883****
FA ₂	PCC	0.735****	0.848****	0.738****	0.850****
	PPCC		0.645***		0.644***
FA ₁₀	PCC	0.256	0.348	0.197	0.303
	PPCC		0.294		0.312
IN-CV	PCC	0.917****		0.917****	

Table 12. EXP III: Pearson Correlation Coefficients (PCC) and partial Pearson Correlation Coefficients (PPCC) for correlations of plasticity (in response to shade vs. full light [S-F RDPI_s], and deep vs. shallow depth [D-S RDPI_s]) of cotyledon size (CS) with its mean value, among-individual coefficient of variation (IN-CV) and FA (FA₁, FA₂ and FA₁₀) under full light, shade and both light conditions, and under shallow, deep depth and both burial depths. * P < 0.10, ** P < 0.05. *** P < 0.01, **** P < 0.001.

Plasticity	Conditions	Coefficient	CS	FA ₁	FA ₂	FA ₁₀	IN-CV
S-F RDPI _s	Full	PCC	-0.263	0.386	-0.198	0.290	-0.116
		PPCC		0.317	0.038	0.504	0.337
	Shade	PCC	0.415	0.013	0.265	0.672*	0.481
		PPCC		0.474	-0.017	0.738*	0.286
	Both	PCC	-0.193	0.210	-0.128	0.320	-0.103
		PPCC		0.124	0.022	0.390	0.188
D-S RDPI _s	Shallow	PCC	0.041	-0.179	-0.125	0.124	-0.041
		PPCC		-0.120	-0.260	0.118	0.189
	Deep	PCC	0.137	0.054	0.107	0.281	0.261
		PPCC		0.158	0.020	0.264	0.364
	Both	PCC	0.089	-0.082	-0.022	0.191	0.122
		PPCC		-0.037	-0.131	0.177	0.098