

**Supplementary Table 1.** List of used lines of *Medicago truncatula*, *M. ciliaris*, and *M. polymorpha*

	<i>M. truncatula</i>	<i>M. ciliaris</i>	<i>M. polymorpha</i>
TN1.3	TN7.17	TNC1.3	TNP1.1
TN1.5	TN7.19	TNC1.11	TNP1.11
TN1.17	TN8.3	TNC8.5	TNP1.23
TN2.12	TN8.5	TNC8.7	TNP7.9
TN2.21	TN8.15	TNC8.9	TNP7.13
TN4.14	TN9.3	TNC10.2	TNP7.22
TN4.18	TN9.22	TNC10.6	TNP8.7
TN6.18	TN14.2	TNC10.11	TNP8.14
TN6.22	TN14.9	TNC11.2	TNP8.15
TN7.2	Jemalong A17	TNC11.5	TNP9.6
	F83005.5	TNC11.11	TNP9.14
			TNP9.29
			TNP11.10
			TNP11.22

**Supplementary Table 2.** Effects of species (Sp), lines nested within species (Line (Sp)), treatment (treat), species × treatment interaction, and line × treatment interaction on the variability of parameters measured for *Medicago truncatula*, *M. ciliaris*, and *M. polymorpha*

	Sp		Line (Sp)		Treat		Sp × Treat		Line (Sp) × Treat	
	F	<i>P</i> -value	F	<i>P</i> -value	F	<i>P</i> -value	F	<i>P</i> -value	F	<i>P</i> -value
YC	16.27	0.000	13.53	0.000	36.06	0.000	17.96	0.000	5.42	0.000
NGL	140.29	0.000	19.90	0.000	12.78	0.000	1.43	0.240	3.17	0.000
NYL	0.27	0.767	3.76	0.000	5.17	0.023	2.18	0.113	2.58	0.000
NDL	3.35	0.036	4.91	0.000	80.60	0.000	3.60	0.028	4.61	0.000
NDP	8.90	0.000	2.91	0.000	24.29	0.000	10.54	0.000	2.44	0.000
PycL	28.79	0.000	5.47	0.000	130.66	0.000	28.48	0.000	5.99	0.000
LR	59.84	0.000	7.41	0.000	18.77	0.000	4.73	0.009	5.29	0.000
NSR	278.02	0.000	6.44	0.000	3.14	0.077	4.00	0.019	1.96	0.000
NSR/LR	82.77	0.000	4.49	0.000	9.93	0.002	2.97	0.052	1.21	0.178
RBL	11.35	0.000	6.19	0.000	839.64	0.000	10.43	0.000	6.42	0.000
%Br	1.32	0.267	8.49	0.000	5628.93	0.000	0.86	0.422	9.25	0.000
PycR	39.23	0.000	6.45	0.000	244.61	0.000	43.77	0.000	6.96	0.000
PycR/RBL	14.05	0.000	2.69	0.000	34.19	0.000	11.46	0.000	2.32	0.000
FWL	528.11	0.000	4.94	0.000	7.45	0.006	12.49	0.000	5.99	0.000
FWR	127.87	0.000	7.75	0.000	86.00	0.000	10.05	0.000	4.17	0.000
PW	410.72	0.000	5.35	0.000	36.46	0.000	14.25	0.000	5.35	0.000
FWR/PW	45.56	0.000	9.14	0.000	48.51	0.000	2.77	0.063	3.16	0.000

F, Snedecor-Fisher coefficient; *P*-value, probability value at the 5% threshold; YC, number of yellow cotyledons; NGL, number of green trifoliolate leaves; NYL, number of yellow leaves; NDL, number of dead leaves; NDP, number of dead plants; PycL, number of leaf pycnidia; LR, root length; NSR, number of secondary roots; RBL, root browning length; %Br, percentage of browning; PycR, number of root pycnidia; FWL, fresh weight of leaves; FWR, fresh weight of roots; PW, plant weight.