

Supplementary Material

Supplementary Figures

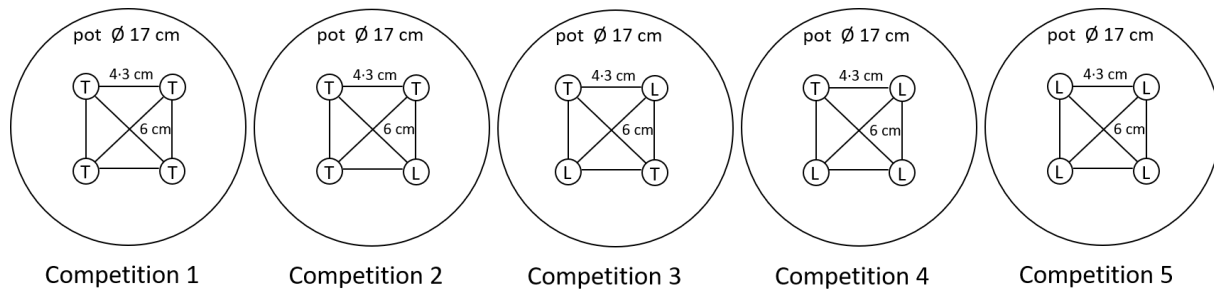


Figure S1: Planting design and competition levels, with T = *Trifolium subterraneum* and L = *Lolium multiflorum*. Neighboring plants had a distance of approximately 4.3 cm and diagonally arranged plants a distance of approximately 6 cm.

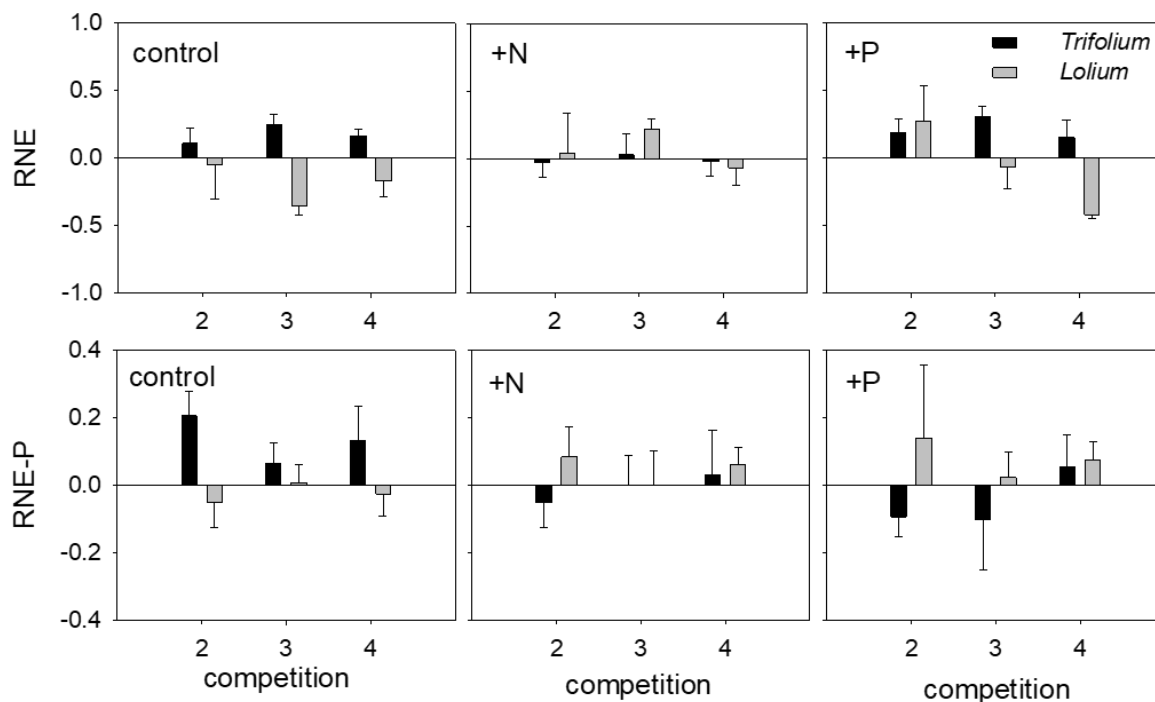


Figure S2: Relative neighbor effect (RNE) and relative neighbor effect for P-competition (RNE-P) of non-mycorrhizal (NM) *Trifolium subterraneum* (■) and *Lolium multiflorum* (■), subjected to standard fertilization (control), enhanced N fertilizer (+N) or enhanced P fertilizer (+P), in the competition treatments 2, 3 and 4. Data represent mean \pm standard error, $n = 5$.

Supplementary Tables

Table S1: Composition of the modified Hoagland nutrient solution (Hoagland and Arnon 1950) for the control (standard fertilizer), enhanced phosphate content (+P fertilizer), or the enhanced nitrogen content (+N fertilizer). Stock solutions were 1 M. Micronutrients and their stock solutions were H_3BO_3 (25 μM), MnSO_4 (2 μM), ZnSO_4 (2 μM), CuSO_4 (0.5 μM), MoO_3 (0.5 μM).

compound	volume of stock solution (ml)		
	per liter for:		
	standard fertilizer	+P fertilizer	+N fertilizer
KNO_3	6	5	10
$\text{Ca}(\text{NO}_3)_2 \cdot 4\text{H}_2\text{O}$	2	2.5	2
$(\text{NH}_4)_2\text{SO}_4$	1	1	1
KH_2PO_4	0	3	0
$(\text{NH}_4)_2\text{HPO}_4$	1	1	1
$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$	2	2	2
KCl	6	4	2
CaCl_2	0.5	0	0.5
NaCl	1.5	2	1.5
Na_2SO_4	2	2	2
Fe-Citrat ($\text{FeC}_6\text{H}_5\text{O}_7$)	1	1	1
Micronutrients	1	1	1

Table S2: Results of three-way ANOVA for factors competition (1-5), mycorrhization (NM, AM), and fertilization (control, +N, +P) on soil inorganic P and N. Data stated are P-values, with significant effects ($P < 0.05$) given in bold. Different letters for the factors competition, and fertilization indicate significantly different means (Tukey HSD post-hoc, $P < 0.05$).

	Soil P (mg kg ⁻¹)	Soil N (mg kg ⁻¹)
Competition (C) (1,2,3,4,5)	0.61	0.003 (a,ab,ab,b,b)
Mycorrhization (M)	<0.001	0.53
Fertilization (F) (control,+N,+P)	<0.001 (b,b,a)	0.83
C × M	0.39	0.40
C × F	0.88	0.95
M × F	0.97	0.95
C × M × F	0.92	0.83

Table S3: Soil P (mg kg⁻¹) in the non-mycorrhizal and mycorrhizal pots with standard fertilization (control), enhanced N fertilizer (+N) or enhanced P fertilizer (+P). As factor competition is not significant, values for the five competition treatments are pooled. Data represents mean ± standard error, n = 25. Different letters indicate significantly different means (Tukey HSD post-hoc, $P < 0.05$).

Mycorrhization / Fertilization	Soil P (mg kg ⁻¹)
NM, control	5.11±0.380 b
NM, +N	5.72±0.458 b
NM, +P	7.83±0.604 a
AM, control	3.33±0.189 c
AM, +N	3.61±0.229 c
AM, +P	5.38±0.433 b

Table S4: Soil N (mg kg^{-1}) in the five competition treatments. As factors mycorrhization and fertilization are not significant, average values are given for each of the five competition treatments. Data represents mean \pm standard error, $n = 30$. Different letters indicate significantly different means (Tukey HSD post-hoc, $P < 0.05$).

Competition	Soil N (mg kg^{-1})
1	44.15 \pm 4.244 a
2	32.22 \pm 3.387 ab
3	30.07 \pm 4.289 ab
4	26.66 \pm 3.098 b
5	24.85 \pm 2.295 b