



Figure S1. Photography of the root system from an ectomycorrhizal plant extracted from the Petri dish at the end of the experiment (experiment F). The very important development of the mycorrhizal fungus *H. cylindrosporum* in the soil-bead mixture leads to a strong aggregation of the soil around the roots of pine.

Table S1. Untransformed average values (SD) of plant P gain in mg-P per Petri dish according to biological treatments. Plant P gain were calculated by subtracting the mean amount of total P contained in plants at the beginning of each experiment from individual values measured at the end of the experiment. *P*-value corresponds to significant difference against 0 (Student t test).

Experiments	Biological Treatments	Plant P gain (mg-P per Petri dish)		<i>P</i>-value
A	C	0.00	(0.18)	NS
A	B	0.00	(0.14)	NS
A	B+N	0.00	(0.09)	NS
A	M	0.06	(0.13)	NS
A	B+M	0.05	(0.14)	NS
A	B+N+M	0.03	(0.18)	NS
B	C	0.34	(0.15)	**
B	B	0.44	(0.23)	**
B	B+N	1.07	(0.11)	***
B	M	0.34	(0.26)	*
B	B+M	0.46	(0.12)	**
B	B+N+M	0.56	(0.07)	***
C	C	0.47	(0.12)	**
C	B	0.60	(0.17)	***
C	B+N	0.72	(0.26)	***
C	M	0.34	(0.27)	**
C	B+M	0.48	(0.09)	***
C	B+N+M	0.48	(0.22)	***
D	C	0.06	(0.08)	NS
D	B	0.11	(0.08)	*
D	B+N	0.08	(0.07)	*
D	M	0.12	(0.07)	**
D	B+M	0.10	(0.09)	*
D	B+N+M	0.18	(0.04)	***
E	C	0.31	(0.21)	*
E	B	0.20	(0.20)	NS
E	B+N	0.82	(0.15)	***
E	M	0.02	(0.05)	NS
E	B+M	0.22	(0.20)	NS
E	B+N+M	0.44	(0.24)	**
F	C	0.07	(0.09)	NS
F	B	0.09	(0.12)	NS
F	B+N	0.64	(0.10)	***
F	M	0.27	(0.12)	**
F	B+M	0.55	(0.16)	**
F	B+N+M	0.69	(0.14)	***

Table S2. Fitting parameters (R^2 , P-value) for each experiment with linear (additive hypothesis) or polynomial (non-additive hypothesis) models.

Experiments		Models		
		Linear	Polynomial	<i>Anova between fitted models</i>
A	R^2	0.02	0.02	0.774
	<i>P-value</i>	0.359	0.634	
B	R^2	0.01	0.05	0.234
	<i>P-value</i>	0.745	0.462	
C	R^2	0.15	0.22	0.147
	<i>P-value</i>	0.029	0.031	
D	R^2	0.09	0.06	0.642
	<i>P-value</i>	0.042	0.117	
E	R^2	0.14	0.17	0.324
	<i>P-value</i>	0.019	0.042	
F	R^2	0.70	0.69	0.822
	<i>P-value</i>	<0.001	<0.001	