Table S1. Fertilization during the conditioning phase. Dairy manure was from Aurora Ridge Dairy (Aurora, NY, USA), poultry manure was from Kreher's (Clarence, NY, USA) and potassium sulfate was from North Country Organics (Bradford, VT, USA).

Annual							Perennial						
Year	Month	Day	Source	N kg. ha^{-1}	P kg ha^{-1}	K kg ha^{-1}	Year	Month	Day	Source	N kg. ha^{-1}	P kg ha^{-1}	K kg ha^{-1}
2016	Aug.	18	Dairy manure	111	18	177	2016	Aug.	18	Dairy manure	111	18	177
2017	June	15	Poultry manure	114	35	51	2018	June	2	K$_2$SO$_4$	0	0	25
2017	Sept.	19	Poultry manure	143	44	63	2018	June	2	Poultry manure	24	7	11
2018	May	25	Poultry manure	131	27	40	2018	July	3	K$_2$SO$_4$	0	0	25
2018	July	16	Poultry manure	131	27	40	2018	July	3	Poultry manure	24	7	11
2018	Sept.	5	Poultry manure	143	44	63	2018	Aug.	13	K$_2$SO$_4$	0	0	25
							2018	Aug.	13	Poultry manure	24	7	11
Total				**773**	**195**	**434**					**183**	**40**	**284**

Table S2. Competition curve parameter estimates and curve fit. P-values are based on t-tests that compare each curve parameter to zero.

Treatment	a_0 (pots g^{-1})			i_w (plants g^{-1})			Residual sum of squares
	Estimate	SE	P-value	Estimate	SE	P-value	
Field							
Annual Low	0.089	0.01	> 0.001	0.18	0.05	0.003	31.8
Annual Conspecific	0.101	0.01	> 0.001	0.13	0.04	0.004	45.4
Annual Heterospecific	0.095	0.01	> 0.001	0.26	0.1	0.022	22.6
Annual High	0.136	0.03	0.001	0.04	0.05	0.443	65.3
Perennial Low	0.170	0.02	> 0.001	0.03	0.04	0.394	30.3
Perennial Conspecific	0.124	0.01	> 0.001	0.11	0.05	0.035	50.5
Perennial Heterospecific	0.116	0.02	> 0.001	0.14	0.04	0.01	27.6
Perennial High	0.080	0.01	> 0.001	0.3	0.08	0.004	53.9
Inoculated							
Annual Low	0.107	0.01	> 0.001	0.16	0.05	0.013	53.3
Annual Conspecific	0.124	0.01	> 0.001	0.16	0.04	0.001	21.8
Annual Heterospecific	0.108	0.02	> 0.001	0.17	0.07	0.033	85
Annual High	0.097	0.01	> 0.001	0.21	0.04	>0.001	17.4
Perennial Low	0.090	0.01	> 0.001	0.19	0.06	0.006	59.5
Perennial Conspecific	0.092	0.02	> 0.001	0.26	0.09	0.014	85.3
Perennial Heterospecific	0.138	0.01	> 0.001	0.1	0.04	0.054	16.1
Perennial High	0.175	0.05	0.003	0.02	0.05	0.641	123.6