Table S1: Selection analysis showing direct and indirect selection on tolerance to competition and focal traits for family line means. Linear (β) and quadratic (γ) selection gradients, and total selection (r) with associated standard errors (SE) and P-values (P).

Trait	β	*SE*	*P*	γ	*SE*	*P*	*r*	*P*
Presence of competition								
Growth	**0.171**	**0.023**	**<0.001**	-0.010	0.051	0.852	**0.827**	**<0.001**
Grabbing on	-0.002	0.021	0.911	-0.003	0.060	0.966	**-0.428**	**0.001**
Phenology	-0.013	0.025	0.609	0.025	0.053	0.633	**-0.318**	**0.018**
Tolerance	**0.057**	**0.020**	**0.007**	0.003	0.030	0.917	**0.515**	**<0.001**
Growth × Grab				-0.036	0.069	0.607		
Growth × Phen				0.076	0.084	0.369		
Phen × Grab				-0.041	0.071	0.560		
Absence of competition								
Growth	0.041	0.028	0.157	-0.015	0.070	0.829	**0.295**	**0.029**
Grabbing on	0.004	0.028	0.880	-0.042	0.054	0.437	-0.055	0.715
Phenology	-0.008	0.035	0.821	0.015	0.067	0.822	**-0.552**	**<0.001**
Tolerance	**-0.336**	**0.031**	**<0.001**	0.031	0.049	0.530	**-0.872**	**<0.001**
Growth × Grab				0.066	0.072	0.370		
Growth × Phen				0.097	0.075	0.203		
Phen × Grab				0.090	0.081	0.273		

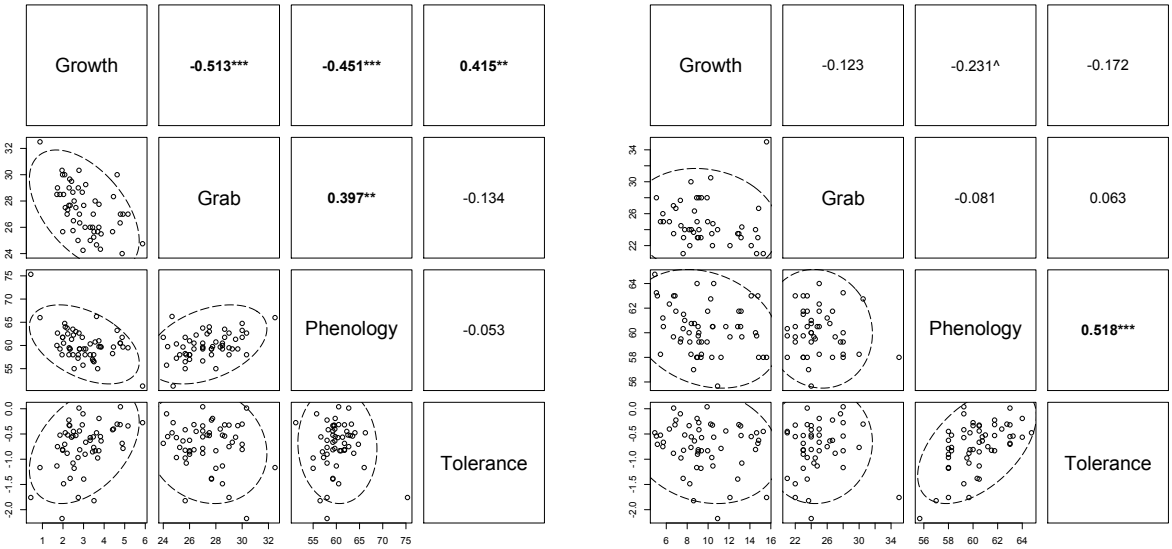
Linear coefficients were determined in each treatment from the first-order model only (R^2 = 0.722, $P < 0.001$ and $R^2 = 0.816$, $P < 0.001$; presence and absence of competition, respectively), while the second-order coefficients were determined from the full model with the linear, squared and cross-product terms ($R^2 = 0.757$, $P < 0.001$ and $R^2 = 0.840$, $P < 0.001$; presence and absence of competition, respectively). Quadratic regression coefficients were converted to selection gradients by doubling them and their respective standard errors. The r column represents the genetic correlations between the trait and fitness, estimated as Pearson product–moment correlations between maternal line means. Significant selection gradients and correlation coefficients are shown in boldface.

Figure S1: Partial-diallel crossing design used to generate experimental individuals. Crosses were performed for each cell with an X. The same set of plants used as maternal parents were used as paternal parents (see also Chaney and Baucom 2012, and Simms and Rausher 1987). Two diallels were used from twenty lines producing one hundred full/half- sibling families total. Only fifty-five of these families from 18 maternal lines were used in this experiment.

♂ \ ♀	1	2	3	4	5	6	7	8	9	10
1		X	X	X	X	X				
2			X	X	X	X	X			
3				X	X	X	X	X		
4					X	X	X	X	X	
5						X	X	X	X	X
6	X						X	X	X	X
7	X	X						X	X	X
8	X	X	X						X	X
9	X	X	X	X						X
10	X	X	X	X	X					

Figure S2: Family line mean correlations among tolerance to competition and focus traits in the (A) presence and (B) absence of competition. Pearson's correlations coefficients (upper diagonal) were calculated using family line means. Scatter plots with 95% confidence region ellipsoids for each pairwise trait combination is displayed in the lower diagonal. Significant values are bolded and indicated with asterisks: ^ $P < 0.10$, * $P < 0.05$, ** $P < 0.01$, and *** $P < 0.001$.

A **B**



Growth = relative growth rate; Grab = day of grabbing on; Phenology = day of first flower; Tolerance = tolerance to competition.

Sample sizes for all traits were $n = 55$ with the two exceptions: Grab in the presence of competition ($n = 54$) and Grab in the absence of competition ($n = 46$).