

Table S1. Significance levels of two-way ANOVA for allelochemical type (i.e., C, MC, and EC) and concentration (i.e., 0.1 mM and 1.0 mM) on seed germination and seedling growth performance of the native plant *L. indica*, and their relationship interaction between.

Variable	Allelochemical type(T)		Allelochemical concentration(C)		T×C	
	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>
Seed germination						
Seed germination rate	3.594	0.067	6.905	0.025	3.700	0.063
Seed germination potential	0.556	0.590	3.306	0.099	1.839	0.209
Seed germination index	6.409	0.016	19.598	<0.001	2.142	0.168
Seed germination speed	5.723	0.022	16.015	0.003	2.902	0.101
Seed vigor index	11.084	0.003	53.053	<0.001	3.706	0.062
Seedling growth						
Root length	73.437	<0.001	209.631	<0.001	22.854	<0.001
Biomass	0.263	0.772	17.987	<0.001	0.465	0.636
Leaf length	8.003	0.003	74.703	<0.001	11.198	<0.001
Leaf width	10.458	<0.001	23.684	<0.001	1.338	0.287

Table S2. The significant level of two-factor ANOVA of allelochemicals types (C, MC and EC) and concentrations (0.1mM and 1.0mM) on the relative competitive intensity and relative dominance index of invasive plant *S.canadensis* and native plant *L.indica*, and the interaction between them.

Variable	Allelochemical type(T)		Allelochemical concentration(C)		T×C	
	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>
<i>S.canadensis</i>						
Relative competition strength	0.285	0.757	26.346	<0.001	10.902	0.002
Relative dominance index	11.296	0.002	2.554	0.136	1.312	0.305
<i>L.indica</i>						
Relative competition strength	8.260	0.006	0.253	0.624	6.038	0.015
Relative dominance index	11.296	0.002	2.554	0.136	1.312	0.305