

Table S1. Effects of nutrient level, selection line and cross (nested within selection line) on leaf concentrations of allelochemicals (total iridoid glycosides, aucubin, catalpol, and ratio of catalpol-to-total iridoid glycosides) in three groups of *P. lanceolata* plants. Values are quasi-F values from GLM analyses of deviance. Error is the mean residual deviance. + P<0.10; \* P<0.05; \*\* P<0.01; \*\*\* P<0.001.

	df	Total IG	Aucubin	Catalpol	Cat/Tot
<b>Unmanipulated plants at T=8 (R8)</b>					
B: Block	2,155	3.7*	2.8 <sup>+</sup>	2.3 <sup>+</sup>	1.6
N: Nutrient	1,14	156.9***	235.7***	11.4**	37.6***
L: Line	1,14	98.5***	49.9***	42.8***	1.0
C: Cross(L)	14,155	2.3**	2.3**	5.0***	5.2***
N*L	1,14	3.1 <sup>+</sup>	5.4*	0.3	0.5
N*C(L)	14,155	0.8	0.6	1.2	1.0
Error	155	0.066	0.070	0.034	123.9
<b>Unmanipulated plants at T=13 (U13)</b>					
B: Block	1,58	21.4***	20.4***	7.2**	0.0
N: Nutrient	1,14	59.2***	65.8***	23.3***	3.1 <sup>+</sup>
L: Line	1,14	73.2***	56.7***	30.2***	3.2 <sup>+</sup>
C: Cross(L)	14,58	1.4	1.3	2.5**	3.9***
N*L	1,14	4.3 <sup>+</sup>	4.3 <sup>+</sup>	2.7	0.6
N*C(L)	14,58	2.1*	1.9*	1.4	1.0
Error	58	0.137	0.118	0.064	58.5
<b>Defoliated and regrown plants T=13(R13)</b>					
B: Block	1,62	0.9	8.7**	110.7***	61.3***
N: Nutrient	1,14	28.2***	48.5***	144.8***	66.3***
L: Line	1,14	41.9***	19.5***	15.5***	1.1
C: Cross(L)	14,62	1.0	1.5	1.4	4.5***
N*L	1,14	1.6	0.5	2.7	0.5
N*C(L)	14,62	1.2	1.7 <sup>+</sup>	0.9	3.2***
Error	62	0.090	0.083	0.050	36.3

35 Table S2. Effects of nutrient level, selection line and cross (nested within selection line) on plant characteristics of three groups of *P.*  
 36 *lanceolata* plants. DW = dry weight of different plant parts; Root Weight Ratio = root mass/total mass. Values are quasi-F values from  
 37 GLM analyses of deviance. Error is the mean residual deviance. + P<0.10; \* P<0.05; \*\* P<0.01; \*\*\* P<0.001.  
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	df	Total DW	Root Weight Ratio	Root DW	# Flower stalks	Reproductive DW	# Rosettes	# Leaves	Area longest leaf	Shoot DW
<b>Unmanipulated plants T=8 (U8)</b>										
43 B : Block	2,151	1.3	41.7***	6.4**	3.8*	3.0	6.8**	9.1***	26.6***	1.7
44 N: Nutrient	1,14	441.6***	100.2***	165.4***	24.9***	27.8***	20.4***	287.5***	332.0***	1013.0***
45 L: Line	1,14	1.4	5.1*	2.3	0.6	0.1	21.1***	84.5***	4.6*	0.1
46 C: Cross(L)	14,151	3.6***	5.9***	5.1***	1.7	1.5	1.4	1.6	2.9***	2.5**
47 N*L	1,14	3.0	1.6	2.5	0.5	0.1	17.8***	7.0*	6.6*	0.9
48 N*C(L)	14,151	0.8	2.5**	1.2	1.7	1.5	1.5	1.5	1.1	0.5
49 Error	151	0.181	29.8	0.200	0.293	0.882	0.495	0.042	94.7	0.183
<b>Unmanipulated plants T=13 (U13)</b>										
52 B: Block	2,157	8.4***	58.8***	35.8**	3.0	1.0	7.8***	8.1***	5.8**	2.9
53 N: Nutrient	1,14	1168.9***	1431.1***	2.7	287.5***	230.5***	67.4***	409.2***	424.0***	2710.1***
54 L: Line	1,14	0.2	1.9	0.2	7.0*	0.1	17.2**	69.6***	41.9***	0.5
55 C: Cross(L)	14,157	2.0*	3.8***	4.4***	3.6***	4.7***	2.7**	3.6***	1.7	1.4
56 N*L	1,14	1.8	1.4	0.7	7.3*	0.1	22.1***	17.5***	24.6***	0.2
57 N*C(L)	14,157	1.4	1.7	2.7**	3.1***	3.3***	0.6	1.6	1.4	1.5
58 Error	157	0.042	25.6	0.120	5.698	2.221	0.876	0.048	361.4	0.036
<b>Defoliated and regrown plants at T=13 (R13)</b>										
61 B: Block	2,154	15.3**	13.2**	16.1**	2.4	0.4	6.6**	28.5***	11.4***	5.1*
62 N: Nutrient	1,14	728.3***	511.9***	0.8	301.9***	169.2***	42.6***	453.7***	230.1***	1248.8***
63 L: Line	1,14	1.7	8.2**	4.3*	4.8*	0.1	10.9**	90.1***	22.3***	0.0
64 C: Cross(L)	14,154	1.8 <sup>+</sup>	1.5	2.1*	4.9***	4.3***	2.1*	2.5**	3.2***	1.3
65 N*L	1,14	2.8	1.6	1.4	8.3*	0.0	17.8***	19.0***	15.1**	0.2
66 N*C(L)	14,154	0.9	1.4	1.2	1.9*	2.4**	1.4	1.1	2.0	1.1
67 Error	154	0.053	42.9	0.116	5.390	2.655	0.492	0.052	218.4	0.186