TABLE 75. Controlled shade regression experiments on *L. japonica*

Experiments[a]	Results	
	No. of pairs	Equation
Chlorophyll A and shade	15	$Y_c = a + bX$
Chlorophyll B and shade	15	$Y_c = a + bX$
Total chlorophyll and shade	15	$Y_c = a + bX$
Leaf biomass and shade	15	$Y_c = a + b \log (X + 1)$
Vigor and shade	15	$Y_c = a + b \log (X + 1)$
Leaf biomass and vigor	15	$Y_c = a + bX$
Total chlorophyll and vigor	15	$Y_c = a + b \log (X + 1)$
Total chlorophyll and leaf biomass	15	$Y_c = a + bX$
Shade and light	15	$\log (Y + 1)_c = \log a + X \log b$
Chlorophyll A and light	15	$Y_c = a + b \log (X + 1)$
Chlorophyll B and light	15	$Y_c = a + bX$
Total chlorophyll and light	15	$Y_c = a + bX$
Leaf biomass and light	15	$Y_c = a + bX$
Vigor and light	15	$Y_c = a + bX$

Experiments[a]	Results	
	Y intercept (a)	Slope (b)
Chlorophyll A and shade	4.86499	− 0.01902
Chlorophyll B and shade	4.42999	− 0.01194
Total chlorophyll and shade	9.26250	− 0.03006
Leaf biomass and shade	0.39825	− 0.17515
Vigor and shade	94.61634	−41.43184
Leaf biomass and vigor	0.03913	+ 0.00328
Total chlorophyll and vigor	7.90049	+ 0.20919
Total chlorophyll and leaf biomass	9.49581	− 7.25166
Shade and light	1.89724	− 0.02033
Chlorophyll A and light	3.93975	+ 0.23097
Chlorophyll B and light	4.21257	− 0.00655
Total chlorophyll and light	8.47860	− 0.00920
Leaf biomass and light	0.06246	+ 0.00366
Vigor and light	13.65661	+ 0.91510

Experiments[a]	Results		
	t value	Significance	r^2 [b]
Chlorophyll A and shade	13 df = 1.103	not significant at 0.1	9%
Chlorophyll B and shade	13 df = 0.750	not significant at 0.1	4%
Total chlorophyll and shade	13 df = 0.911	not significant at 0.1	6%
Leaf biomass and shade	13 df = 7.145	significant beyond 0.001	80%
Vigor and shade	13 df = 5.617	significant beyond 0.001	71%
Leaf biomass and vigor	13 df = 5.245	significant beyond 0.001	68%
Total chlorophyll and vigor	13 df = 0.128	not significant at 0.1	0.1%
Total chlorophyll and leaf biomass	13 df = 0.866	not significant at 0.1	5%
Shade and light	13 df = 17.914	significant beyond 0.001	96%
Chlorophyll A and light	13 df = 0.309	not significant at 0.1	1%
Chlorophyll B and light	13 df = 0.393	not significant at 0.1	1%
Total chlorophyll and light	13 df = 0.263	not significant at 0.1	1%
Leaf biomass and light	13 df = 7.511	significant beyond 0.001	81%
Vigor and light	13 df = 7.279	significant beyond 0.001	80%

[a]The dependent or *Y* variable is shown first in each pair, the *X* or independent variable is shown second. Chlorophyll is in mg/g of dry-leaf weight, shade is in layers of cheesecloth, leaf biomass is in g (dry weight)/dm², vigor is in cm² of green and chlorotic leaves/dm², and light is in percent of open sunlight.

[b]r^2 = coefficient of determination.