

TABLE 74. Controlled shade regression experiments on *H. helix*

Experiments <sup>a</sup>	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	12	$Y_c = a + b \log (X + 1)$
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	$\log (Y + 1)_c = \log a + b \log (X + 1)$
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	$Y_c = a + b \log (X + 1)$
Total chlorophyll and light	15	$Y_c = a + b \log (X + 1)$
Leaf biomass and light	15	$Y_c = a + b \log (X + 1)$
Vigor and light	12	$Y_c = a + bX$

Experiments <sup>a</sup>	Results	
	Y intercept (a)	Slope (b)
Chlorophyll A and shade	3.66166	- 0.01819
Chlorophyll B and shade	2.34833	- 0.00875
Total chlorophyll and shade	5.96499	- 0.02680
Leaf biomass and shade	0.46580	- 0.17008
Vigor and shade	160.15292	-74.15674
Leaf biomass and vigor	0.04649	+ 0.00370
Total chlorophyll and vigor	2.39131	+ 1.63177
Total chlorophyll and leaf biomass	0.58889	+ 1.68898
Shade and light	1.73889	- 0.02663
Chlorophyll A and light	2.43429	+ 0.70967
Chlorophyll B and light	1.82987	+ 0.25226
Total chlorophyll and light	4.22967	+ 0.95510
Leaf biomass and light	0.13505	+ 0.14905
Vigor and light	27.32733	+ 2.62767

Experiments <sup>a</sup>	Results		
	t value	Significance	r <sup>2</sup> <sup>b</sup>
Chlorophyll A and shade	13 df = 2.591	significant at 0.025	34%
Chlorophyll B and shade	13 df = 1.750	not significant at 0.1	19%
Total chlorophyll and shade	13 df = 2.311	significant at 0.05	29%
Leaf biomass and shade	13 df = 5.654	significant beyond 0.001	71%
Vigor and shade	10 df = 4.574	significant at 0.005	68%
Leaf biomass and vigor	13 df = 8.287	significant beyond 0.001	84%
Total chlorophyll and vigor	13 df = 2.010	significant at 0.1	24%
Total chlorophyll and leaf biomass	13 df = 1.906	significant at 0.1	22%
Shade and light	13 df = 16.822	significant beyond 0.001	96%
Chlorophyll A and light	13 df = 2.016	significant at 0.1	24%
Chlorophyll B and light	13 df = 1.011	not significant at 0.1	7%
Total chlorophyll and light	13 df = 1.631	not significant at 0.1	17%
Leaf biomass and light	13 df = 4.587	significant beyond 0.001	62%
Vigor and light	10 df = 3.957	significant at 0.005	61%

<sup>a</sup>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)/dm<sup>2</sup>, vigor is in dm<sup>2</sup> of green and chlorotic leaves/dm<sup>2</sup>, and light is in percent of open sunlight.

<sup>b</sup>r<sup>2</sup> = coefficient of determination.