Supplementary Materials

Table S1. Model fit of physiological and growth models of *Panax ginseng* according to light environment.

	AIC	BIC	n	Baseline test		
				χ²	df	p
Model	447.278	523.759	50	23.686	11	0.014

Table S2. Additional fit measure results.

Index	Value
Comparative Fit Index (CFI)	0.973
Normed fit index(NFI)	0.953
Bollen's Incremental Fit Index (IFI)	0.974
Relative Noncentrality Index (RNI)	0.973
Goodness of fit index (GFI)	**0.993**

Table S3. Regression coefficients and p-values of model.

Predictor		Outcome	Estimate	Std. Error	z-value	p	Standardized		
							All	LV	Endo
E	~	ADW	0.060	0.154	0.392	0.695	-0.241	0.362	0.061
R	~	ADW	0.900	0.289	3.113	0.002	0.333	1.467	0.448
Y	~	ADW	1.738	0.445	3.902	< .001	0.865	2.611	0.706
Ci	~	RDW	0.467	0.128	3.643	< .001	0.216	0.718	0.465
B	~	RDW	-0.942	0.280	-3.369	< .001	-1.490	-0.394	-0.465
W	~	RDW	1.167	0.306	3.813	< .001	0.567	1.767	0.470
R	~	Pn	-0.505	0.292	-1.728	0.084	-1.078	0.068	-0.250
B	~	Pn	0.065	0.292	0.222	0.824	-0.508	0.638	0.032
W	~	Pn	1.925	0.293	6.565	< .001	1.351	2.500	0.778
Y	~	Pn	-0.360	0.459	-0.785	0.433	-1.259	0.539	-0.145
gs	~	Pn	0.017	0.122	0.141	0.888	-0.221	0.255	0.017
R	~	E	-0.134	0.037	-3.587	< .001	-0.207	-0.061	-0.066
B	~	E	-0.072	0.036	-1.994	0.046	-0.144	-0.001	-0.036
W	~	E	0.281	0.050	5.646	< .001	0.183	0.379	0.114
Y	~	E	0.145	0.057	2.526	0.012	0.032	0.257	0.059
gs	~	E	0.923	0.015	61.102	< .001	0.894	0.953	0.923

Pn	~	E	-0.041	0.018	-2.342	0.019	-0.076	-0.007	-0.041
R	~	Ci	2.486	0.144	17.208	< .001	2.203	2.769	1.230
B	~	Ci	2.233	0.140	15.897	< .001	1.958	2.508	1.105
W	~	Ci	-1.028	0.194	-5.306	< .001	-1.408	-0.648	-0.416
Y	~	Ci	2.360	0.225	10.473	< .001	1.918	2.802	0.954
Pn	~	Ci	-0.159	0.068	-2.346	0.019	-0.292	-0.026	-0.159
E	~	Ci	0.073	0.063	1.160	0.246	-0.050	0.196	0.073
R	~	gs	0.042	0.340	0.124	0.902	-0.624	0.708	0.021
B	~	gs	-0.021	0.340	-0.062	0.951	-0.687	0.645	-0.010
W	~	gs	0.210	0.340	0.618	0.537	-0.456	0.876	0.085
Y	~	**gs**	1.638	0.481	3.407	< .001	0.696	2.581	0.662
RDW	~~	**ADW**	-0.104	0.091	-1.144	0.252	-0.164	-0.104	-0.164

~: Regression analysis, ~~:Correlation analysis.