

Table S1. Growth traits and phytochemical contents parameters, in which the interaction (AxB) between the two factors, irradiance levels (110, 220, 340 $\mu\text{mol m}^{-2} \text{s}^{-1}$) and spectral combinations (RB and RGB) (AxB) was not significant. When there was not significant AxB interaction, the effect of light intensity (A) and light spectra (B) was evaluated separately using one-way ANOVA and t-test, respectively. Different letters on the rows within each light spectrum (RB and RGB) indicate significant differences among light intensity (Tukey's test, $p < 0.05$). Pairwise comparisons between light spectra (RB and RGB) among different light intensity were performed using a two-tailed unpaired Student's t tests, assuming equal variances (* $p < 0.05$; ** $p < 0.01$)

Statistical analysis										
Parameter	Species	One'way ANOVA						t-test		
		RB			RGB			110	220	340
		110	220	340	110	220	340	RB vs. RGB	RB vs. RGB	RB vs. RGB
FW	Green Mizuna	ns	ns	ns	ns	ns	ns	ns	ns	ns
	Chicory	a	b	a	b	b	a	ns	*	ns
	French Marigold	ns	ns	ns	b	ab	a	ns	ns	ns
	Celosia	ns	ns	ns	ns	ns	ns	ns	ns	ns
DW	China rose	c	b	a	c	b	a	**	ns	ns
	Green Mizuna	b	a	a	b	ab	a	ns	ns	ns
	Chicory	c	b	a	c	b	a	ns	*	ns
	French Marigold	b	a	a	c	b	a	*	*	ns
	Celosia	ns	ns	ns	b	b	a	ns	ns	*
Phenols	China rose	ns	ns	ns	ns	ns	ns	ns	ns	ns
	Green Mizuna	b	a	ab	b	b	a	ns	ns	ns
FRAP	China rose	ns	ns	ns	a	b	b	ns	*	ns
	Green Mizuna	ns	ns	ns	a	b	ab	ns	**	*
Chlorophyll	China rose	ns	ns	ns	ns	ns	ns	*	ns	ns
	Green Mizuna	ns	ns	ns	ns	ns	ns	ns	ns	ns
	Chicory	ns	ns	ns	ns	ns	ns	ns	ns	ns
	Alfalfa	b	a	ab	ns	ns	ns	ns	ns	ns
	French Marigold	ns	ns	ns	b	b	a	ns	ns	ns
	Celosia	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carotenoids	Green Mizuna	ns	ns	ns	ns	ns	ns	ns	ns	ns
	Chicory	b	a	ab	ns	ns	ns	ns	ns	ns
	French Marigold	a	a	b	ab	a	b	ns	ns	*
	Celosia	b	a	c	a	a	b	*	**	ns

Chroma	China rose	b	ab	a	ns	ns	ns	ns	ns	*
	Chicory	ns	ns	ns	ns	ns	ns	ns	ns	ns
	Alfalfa	b	a	a	b	a	b	ns	**	ns
	French Marigold	ns	ns	ns	b	a	ab	ns	**	ns
	Celosia	b	a	a	b	a	a	ns	**	ns