

Supplementary Materials

Table S1. Correlation matrixes of ABTS free radical scavenging activity, ferric reducing antioxidant power (FRAP) and DPPH free radical scavenging activity in kale ‘Dwarf Blue Green’ microgreens under different lighting treatments.

BR₆₃₈	ABTS	FRAP	DPPH
ABTS	1	0.910	0.889
FRAP	0.910	1	0.990
DPPH	0.889	0.990	1
BR₆₆₅	ABTS	FRAP	DPPH
ABTS	1	0.807	0.869
FRAP	0.807	1	0.972
DPPH	0.869	0.972	1
BR	ABTS	FRAP	DPPH
ABTS	1	0.697	0.693
FRAP	0.697	1	0.920
DPPH	0.693	0.920	1
BRV	ABTS	FRAP	DPPH
ABTS	1	0.853	0.586
FRAP	0.853	1	0.814
DPPH	0.586	0.814	1
BRG	ABTS	FRAP	DPPH
ABTS	1	0.874	0.821
FRAP	0.874	1	0.950
DPPH	0.821	0.950	1

BR₆₃₈ - blue (B, peak = 447 nm), red (R₆₃₈, peak = 638 nm); BR₆₆₅ - B and red (R₆₆₅, peak = 665 nm); BR - B and red (R, peaks = 638 and 665 nm); BRV – B, R, and violet (V, peak = 405 nm); BRG - B, R and green (G, peak = 520 nm).

Table S2. Correlation matrixes of ABTS free radical scavenging activity, ferric reducing antioxidant power (FRAP) and DPPH free radical scavenging activity in broccoli ‘Micro Green’ microgreens under different lighting treatments.

BR₆₃₈	ABTS	FRAP	DPPH
ABTS	1	0.908	0.779
FRAP	0.908	1	0.726
DPPH	0.779	0.726	1
BR₆₆₅	ABTS	FRAP	DPPH
ABTS	1	0.699	0.487
FRAP	0.699	1	0.602
DPPH	0.487	0.602	1
BR	ABTS	FRAP	DPPH
ABTS	1	0.821	0.430
FRAP	0.821	1	0.766
DPPH	0.430	0.766	1
BRV	ABTS	FRAP	DPPH
ABTS	1	0.819	0.871
FRAP	0.819	1	0.822
DPPH	0.871	0.822	1
BRG	ABTS	FRAP	DPPH
ABTS	1	0.964	0.885
FRAP	0.964	1	0.846
DPPH	0.885	0.846	1

BR₆₃₈ - blue (B, peak = 447 nm), red (R₆₃₈, peak = 638 nm); BR₆₆₅ - B and red (R₆₆₅, peak = 665 nm); BR - B and red (R, peaks = 638 and 665 nm); BRV – B, R, and violet (V, peak = 405 nm); BRG - B, R and green (G, peak = 520 nm).

Table S3. Factor loadings, eigenvalue, variability (%), cumulative variability (%) and score for the first two principal (F1–F2) components for phytochemical constituents and antioxidant activity in microgreens under different lighting treatments during post-harvest storage in dark.

	Kale		Broccoli	
Factors	F1	F2	F1	F2
Eigenvalue	5.287	0.910	4.256	1.317
Variability (%)	75.534	13.002	60.800	18.814
Cumulative %	75.534	88.536	60.800	79.614
Factor Loadings				
ABTS	0.891	-0.133	0.810	-0.497
FRAP	0.920	-0.274	0.890	-0.219
DPPH	0.852	-0.440	0.846	-0.388
TP	0.873	-0.331	0.796	0.254
TPC	0.892	0.330	0.922	0.065
CHL	0.794	0.469	0.443	0.712
CAR	0.855	0.431	0.643	0.543
Factor Score				
BR ₆₃₈ × HD	2.146	-1.587	1.397	0.301
BR ₆₃₈ × 1D-PH	0.265	1.052	-0.673	3.078
BR ₆₃₈ × 3D-PH	-2.260	0.060	-2.480	1.023
BR ₆₃₈ × 5D-PH	-2.876	-0.078	-3.538	0.018
BR ₆₆₅ × HD	3.506	-0.994	2.155	-0.624
BR ₆₆₅ × 1D-PH	0.778	1.025	1.530	0.132
BR ₆₆₅ × 3D-PH	0.465	0.259	0.480	-0.109
BR ₆₆₅ × 5D-PH	-1.496	0.027	0.035	0.192
BR × HD	2.671	-1.640	2.779	0.115
BR × 1D-PH	-0.332	0.338	0.917	1.262
BR × 3D-PH	-1.455	0.547	-1.643	-2.322
BR × 5D-PH	-2.346	0.015	-3.034	-1.679
BRV × HD	6.068	2.452	2.014	-1.910
BRV × 1D-PH	1.441	-1.398	2.945	0.475
BRV × 3D-PH	-1.345	0.406	-0.849	-0.174
BRV × 5D-PH	-2.179	-0.445	-0.419	-0.246
BRG × HD	1.826	-0.709	2.525	-0.527
BRG × 1D-PH	-0.926	0.381	1.194	0.126
BRG × 3D-PH	-2.101	0.558	-2.082	1.076
BRG × 5D-PH	-1.851	-0.268	-3.256	-0.207

BR₆₃₈ - blue (B, peak = 447 nm), red (R₆₃₈, peak = 638 nm); BR₆₆₅ - B and red (R₆₆₅, peak = 665 nm); BR - B and red (R, peaks = 638 and 665 nm); BRV - B, R, and violet (V, peak = 405 nm); BRG - B, R and green (G, peak = 520 nm). HD – harvest day; 1D-PH – one day after the harvest; 3D-PH – three days after the harvest; 5D-PH – five days after the harvest. ABTS – ABTS free radical scavenging activity; DPPH – DPPH free radical scavenging activity; FRAP – ferric reducing antioxidant power; TP – total protein content; TPC – total phenolic content; CHL – chlorophyll a and b content; CAR – total carotenoids content.