

Antioxidant capacity and shelf life of radish microgreens affected by growth light and cultivar

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Supplementary Material

Table S1. The influence of blue/red combination (B:2R) and white (B:G:R) LED light on measured parameters in three seven-day old radish microgreens cultivars determined before storage (control).

Parameter	Cultivar	Light spectral treatments	
		B:2R	B:G:R
Total chlorophyll content (mg/g _{FW})	cvP	0.323 ± 0.026 ^{ab}	0.298 ± 0.021 ^b
	cvR	0.298 ± 0.009 ^b	0.268 ± 0.049 ^b
	cvG	0.367 ± 0.024 ^a	0.320 ± 0.064 ^{ab}
Carotenoid content (mg/g _{FW})	cvP	0.060 ± 0.011 ^{ab}	0.055 ± 0.004 ^{bc}
	cvR	0.058 ± 0.003 ^{abc}	0.046 ± 0.006 ^c
	cvG	0.069 ± 0.005 ^a	0.059 ± 0.017 ^{abc}
Total soluble proteins (mg/g _{FW})	cvP	0.973 ± 0.180 ^{cd}	0.851 ± 0.080 ^e
	cvR	1.211 ± 0.070 ^a	1.150 ± 0.270 ^{ab}
	cvG	0.928 ± 0.091 ^{de}	1.052 ± 0.106 ^{bc}
Total soluble sugars (mg/g _{DM})	cvP	7.319 ± 0.712 ^b	8.256 ± 1.619 ^{ab}
	cvR	9.726 ± 1.308 ^a	8.649 ± 1.629 ^{ab}
	cvG	7.666 ± 1.905 ^{ab}	8.053 ± 0.803 ^{ab}
Dry matter content (%)	cvP	4.784 ± 0.082 ^{ab}	4.941 ± 0.812 ^{ab}
	cvR	5.648 ± 0.667 ^a	4.589 ± 0.156 ^b
	cvG	5.073 ± 0.665 ^{ab}	5.078 ± 0.220 ^{ab}
TAC by DPPH (μmol _{TROLOXeq} /g _{FW})	cvP	0.930 ± 0.023 ^b	0.618 ± 0.025 ^d
	cvR	1.282 ± 0.045 ^a	1.299 ± 0.050 ^a
	cvG	0.671 ± 0.029 ^c	0.538 ± 0.015 ^e
TAC by FRAP (μmol _{TROLOXeq} /g _{FW})	cvP	4.320 ± 0.542 ^a	2.392 ± 0.120 ^c
	cvR	3.777 ± 0.151 ^a	3.732 ± 0.510 ^{ab}
	cvG	3.133 ± 0.312 ^b	2.099 ± 0.104 ^c
Monomeric anthocyanins (mg/g _{FW})	cvP	3.895 ± 0.224 ^c	2.929 ± 0.240 ^c
	cvR	21.314 ± 1.037 ^b	24.818 ± 1.892 ^a
	cvG	ND	ND
Total soluble phenolic (mg _{GAEeq} /g _{FW})	cvP	2.085 ± 0.170 ^b	1.478 ± 0.130 ^c
	cvR	1.998 ± 0.069 ^b	2.460 ± 0.096 ^a
	cvG	2.492 ± 0.251	1.264 ± 0.067 ^c
Ascorbic acid (mg/100g _{FW})	cvP	7.349 ± 0.429 ^a	5.257 ± 0.126 ^d
	cvR	6.849 ± 0.274 ^b	5.266 ± 0.090 ^d
	cvG	5.910 ± 0.169 ^c	4.327 ± 0.166 ^e

Data are showing mean values of three replicates ($n = 3$) ± standard deviation (SD). Different letters are representing significant difference ($p \leq 0.05$) between three cultivars of radish microgreens grown under the two light spectra

(ANOVA, LSD). cvP – China rose radish (*R. sativus* cult. China Rose); cvR – red radish (*R. sativus* cult. Sango); cvG – Japanese white or daikon radish (*Raphanus sativus* var. *longipinnatus*); TAC – total antioxidant capacity; FW – fresh weight; DM – dry matter; ND – not detected.