Supplementary Material

Table S1. Color parameters of cotyledonary leaves of kale, rappini and cress microgreens produced at three sowing densities (3.5, 4.0, 4.5 seeds·cm^{-2}). L, lightness; a*, red/green chromaticity; b*, yellow/blue chromaticity; C, color saturation; h°, hue angle.

	L*	a*	b*	Hue	Chroma
Species					
Kale	50.4 a	-17.6 a	24.3 c	125.9 a	30.0 b
Rappini	50.2 a	-18.7 b	28.5 b	123.4 b	34.1 a
Cress	47.2 b	-17.2 a	30.3 a	119.6 c	34.9 a
Density (seeds/cm^2)					
3.5	49.5	-18.0	28.1	122.9	33.4
4.0	49.3	-17.7	27.8	122.7	33.0
4.5	48.9	-17.8	27.4	123.2	32.7
Significance [(1)]					
Species	***	***	***	***	***
Density	ns	ns	ns	ns	ns
Species X Density	ns	ns	ns	ns	ns

[(1)] Significance: *** for $p \leq 0.001$; ns, not significant. Different lowercase letters indicate significant differences ($p = 0.05$) within the same column of the table.

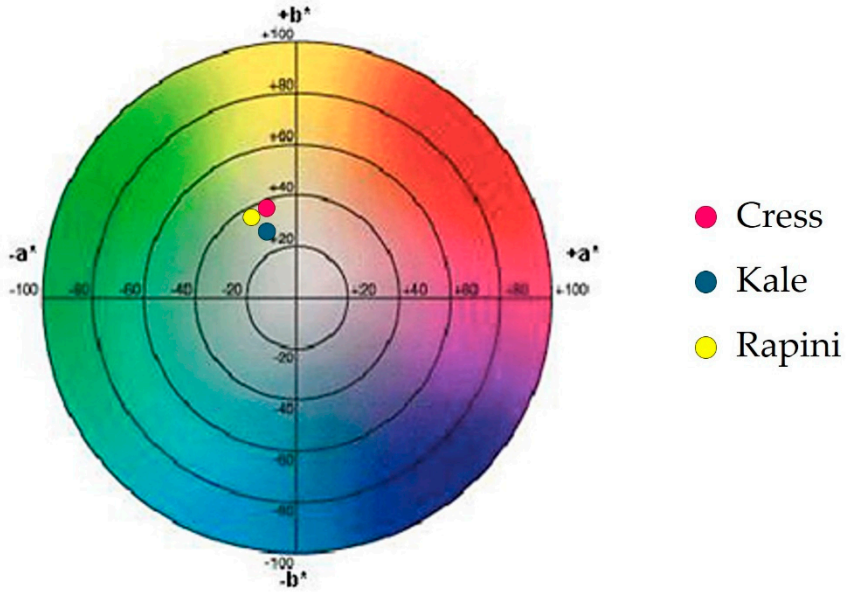


Figure S1. Diagram of chromaticity in a CIELab space (a*, red/green chromaticity; b*, yellow/blue chromaticity) of cotyledonary leaves of kale, rappini and cress microgreens.

Table S2. Yield, biometric and quality parameters of kale, rapini and cress microgreens produced at three sowing densities (3.5, 4.0, 4.5 seeds·cm^{-2}). Data are means of three replicates (n=3). The significance of the main effects and of the interaction effect is reported in Table 1 of the manuscript. FW=fresh weight.

Species	Density (seeds·cm^{-2})	Yield (kg·m^{-2})	Developmental Stage [1]	Coverage [2]	Uniformity [2]	Hypocotyl length (cm)	Microgreens height (cm)	True leaf length (cm)	Leaf area (cm^2·plant^{-1})	Dry matter (g·100 g^{-1} FW)	Chlorophyll content (μmol·m^{-2})
Cress	3.5	1.1 ± 0.3	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0	41.5 ± 2.2	6.4 ± 0.5	22.6 ± 2.2	1.1 ± 0.1	9.3 ± 6.6	53.8 ± 13.0
	4.0	1.3 ± 0.2	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0	45.3 ± 3.6	6.7 ± 0.5	21.0 ± 3.2	1.0 ± 0.1	4.9 ± 0.2	94.5 ± 33.1
	4.5	1.4 ± 0.2	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0	42.8 ± 2.7	6.5 ± 1.0	21.1 ± 1.3	1.0 ± 0.0	4.9 ± 0.0	93.4 ± 26.7
Kale	3.5	1.9 ± 0.3	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0	48.7 ± 1.9	8.7 ± 0.1	13.1 ± 0.8	2.6 ± 0.1	5.4 ± 0.7	234.1 ± 33.4
	4.0	2.4 ± 0.6	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0	51.9 ± 9.3	8.6 ± 0.5	11.2 ± 1.2	2.7 ± 0.1	5.0 ± 0.5	242.5 ± 11.4
	4.5	2.4 ± 0.4	2.8 ± 0.5	2.0 ± 0.0	3.0 ± 0.0	56.2 ± 6.3	8.8 ± 0.4	12.5 ± 2.0	2.6 ± 0.2	5.1 ± 0.8	242.0 ± 14.0
Rapini	3.5	1.8 ± 0.4	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0	55.4 ± 10	8.0 ± 0.7	11.6 ± 0.6	2.1 ± 0.1	5.4 ± 0.5	198.4 ± 17.2
	4.0	1.7 ± 0.4	3.0 ± 0.0	2.0 ± 0.0	3.0 ± 0.0	57.1 ± 6.8	8.4 ± 0.6	34.7 ± 48.3	2.0 ± 0.1	5.5 ± 0.1	185.7 ± 15.0
	4.5	1.9 ± 0.3	3.0 ± 0.0	2.3 ± 0.5	2.8 ± 0.5	54.6 ± 6.4	8.3 ± 0.2	10.3 ± 1.8	2.0 ± 0.5	5.6 ± 0.2	182.3 ± 26.9

[1] Developmental stage: 1) Cotyledonary leaves completely unfolded; 2) First true leaf, length < 5 mm; 3) First true leaf, length > 5 mm.

[2] Crop coverage: 1) poor (incomplete coverage); 2) optimal (full coverage); 3) excessive (overlapping).

[3] Uniformity of canopy: 1) irregular favouring inward growth; 2) uniform growth; 3) irregular favouring outward growth.

Table S3. Growth, productive and quality parameters of two landraces of rapini (*Cima grande* and *Fasanese*), grown as microgreens at three sowing densities (3, 4, 5 seeds·cm^{-2}) and harvested in two times (11 and 14 days after sowing). Data points are means of three replicates (n=3). The significance of the main effects and of the interaction effect is reported in Table 2 and visualised in Figure 4 of the manuscript. FW=fresh weight.

Landrace	**Density** (seeds·cm^{-2})	**Harvest** (days after sowing)	**Yield** (kg·m^{-2})	**Developmental stage** [(1)]	**Coverage** [(2)]	**Uniformity** [(3)]	**Microgreens height** (cm)	**True leaf length** (cm)	**Dry matter** (g·100 g^{-1} FW)
Cima Grande	3	11	51.6 ± 6.7	3.0 ± 0.0	2.0 ± 0.0	1.7 ± 0.6	7.6 ± 0.5	0.7 ± 0.0	5.7 ± 0.3
		14	82.5 ± 12.9	3.0 ± 0.0	2.0 ± 0.0	1.3 ± 0.6	9.7 ± 0.9	1.1 ± 0.2	5.6 ± 0.4
	4	11	62.9 ± 5.2	2.3 ± 0.6	2.3 ± 0.6	1.3 ± 0.6	8.0 ± 0.6	0.5 ± 0.1	5.5 ± 0.4
		14	89.5 ± 9.0	3.0 ± 0.0	2.0 ± 0.0	1.0 ± 0.0	9.9 ± 0.8	1.2 ± 0.1	5.5 ± 0.4
	5	11	75.5 ± 4.3	3.0 ± 0.0	3.0 ± 0.0	1.3 ± 0.6	8.2 ± 0.4	0.3 ± 0.2	5.4 ± 0.4
		14	102.6 ± 8.4	3.0 ± 0.0	2.0 ± 0.0	1.3 ± 0.6	10.1 ± 0.3	1.1 ± 0.2	5.5 ± 0.1
Fasanese	3	11	40.4 ± 8.1	2.3 ± 0.6	2.0 ± 0.0	1.7 ± 0.6	6.8 ± 1.2	0.4 ± 0.3	5.7 ± 0.2
		14	81.1 ± 7.4	3.0 ± 0.0	2.0 ± 0.0	1.3 ± 0.6	10.2 ± 0.5	1.3 ± 0.0	5.2 ± 0.2
	4	11	49.2 ± 4.8	2.3 ± 0.6	2.3 ± 0.6	2.0 ± 0.0	7.1 ± 0.3	0.5 ± 0.2	5.6 ± 0.2
		14	79.3 ± 10.1	3.0 ± 0.0	2.0 ± 0.0	1.3 ± 0.6	10.0 ± 1.0	1.1 ± 0.2	5.3 ± 0.1
	5	11	54.1 ± 1.8	2.0 ± 0.0	3.0 ± 0.0	1.0 ± 0.0	7.0 ± 0.6	0.2 ± 0.0	5.5 ± 0.1
		14	91.0 ± 8.4	3.0 ± 0.0	2.0 ± 0.0	1.7 ± 0.6	10.2 ± 0.5	1.0 ± 0.1	5.2 ± 0.2

[(1)] Developmental stage: 1) Cotyledonary leaves completely unfolded; 2) First true leaf, length < 5 mm; 3) First true leaf, length > 5 mm.

[(2)] Crop coverage: 1) poor (incomplete coverage); 2) optimal (full coverage); 3) excessive (overlapping).

[(3)] Uniformity of canopy: 1) irregular favouring inward growth; 2) uniform growth; 3) irregular favouring outward growth.

Table S4. Concentration of the main anions (chlorine, Cl^-; phosphate, $H_2PO_4^-$; sulphate, SO_4^{2-}) expressed on the dry weight (DW) and nitrate (NO_3^-) on fresh weight (FW) as quality parameters of two landraces of rapini (*Cima grande* and *Fasanese*), grown as microgreens at three sowing densities (3, 4, 5 seeds·cm^{-2}) and harvested in two times (11 and 14 days after sowing). Data points are means of three replicates (n=3). The significance of the main effects and of the interaction effect is reported in Table 3 and visualised in Figure 5 of the manuscript.

Landrace	**Density** (seeds·cm^{-2})	**Harvest** (days after sowing)	**Cl^-**	**$H_2PO_4^-$** (g·100 g^{-1} DW)	**SO_4^{2-}**	**NO_3^-** (mg·kg^{-1} FW)
Cima Grande	3	11	2.5 ± 0.3	1.1 ± 0.1	3.4 ± 1.6	3650.7 ± 812.9
		14	3.3 ± 0.2	2.0 ± 0.6	3.3 ± 0.2	3408.7 ± 126.2
	4	11	2.5 ± 0.4	1.2 ± 0.1	3.1 ± 0.3	2662.0 ± 641.1
		14	3.0 ± 0.4	2.2 ± 0.2	2.8 ± 0.6	3154.3 ± 429.0
	5	11	2.2 ± 0.4	1.1 ± 0.1	2.9 ± 0.5	2514.0 ± 212.9
		14	2.9 ± 0.2	2.4 ± 0.1	2.9 ± 0.1	3065.3 ± 135.7
Fasanese	3	11	2.8 ± 0.3	1.0 ± 0.1	2.8 ± 0.1	3925.0 ± 905.6
		14	3.5 ± 0.0	1.0 ± 0.6	3.3 ± 0.2	3874.0 ± 202.6
	4	11	2.8 ± 0.3	1.1 ± 0.2	3.1 ± 0.3	3072.0 ± 287.5
		14	3.4 ± 0.4	1.4 ± 0.6	3.1 ± 0.1	3816.3 ± 450.5
	5	11	3.2 ± 0.2	1.2 ± 0.1	3.3 ± 0.2	3377.3 ± 310.0
		14	3.4 ± 0.2	1.7 ± 0.1	3.2 ± 0.3	3533.7 ± 417.8

Table S5. Yield, biometric and quality parameters of two landraces of kale (*Barese* and *Altamura*), grown as microgreens at three sowing densities (3, 4, 5 seeds·cm^{-2}) and harvested at 14 days after sowing). Data points are means of three replicates (n=3). The significance of the main effects and of the interaction effect is reported in Table 4 of the manuscript.

Landrace	**Density** (seeds·cm^{-2})	**Yield** (kg·m^{-2})	**Developmental stage** [1]	**Coverage** [2]	**Uniformity** [3]	**True leaf length** (cm)
Barese	3	47.0 ± 1.4	3.0 ± 0.0	1.0 ± 0.0	1.3 ± 0.6	9.2 ± 1.6
	4	55.9 ± 9.1	3.0 ± 0.0	1.7 ± 0.6	1.3 ± 0.6	8.5 ± 1.3
	5	64.5 ± 7.8	3.0 ± 0.0	1.7 ± 0.6	1.0 ± 0.0	10.2 ± 0.9
Altamura	3	74.0 ± 5.0	1.3 ± 0.6	2.0 ± 0.0	2.0 ± 0.0	9.5 ± 1.0
	4	76.1 ± 4.3	1.3 ± 0.6	2.0 ± 0.0	1.3 ± 0.6	9.9 ± 0.9
	5	85.0 ± 10.8	1.3 ± 0.6	2.0 ± 0.0	1.0 ± 0.0	10.5 ± 1.3

[1] Developmental stage: 1) Cotyledonary leaves completely unfolded; 2) First true leaf, length < 5 mm; 3) First true leaf, length > 5 mm.

[2] Crop coverage: 1) poor (incomplete coverage); 2) optimal (full coverage); 3) excessive (overlapping).

[3] Uniformity of canopy: 1) irregular favouring inward growth; 2) uniform growth; 3) irregular favouring outward growth.