

Nutrient Content of Selected Microgreens

Commercial name	Broccoli	Red Cabbage	Kale (Tuscan)	Radish (Red)	Sunflower	Peas
Scientific name (genus and species)	<i>Brassica oleracea</i> <i>L. var. italica</i>	<i>Brassica oleracea</i> L. <i>var. capitata f. rubra</i>	<i>Brassica oleracea</i> L. <i>var. acephala</i>	<i>Raphanus sativus</i> L.	<i>Helianthus annuus</i>	<i>Pisum sativum</i> L.
Planting	10–12 seed / sq. in	20–25 seed / sq. in	12–17 seed / sq. in	16–20 seed / sq. in	1–2 seed / sq. in	1–2 seed / sq. in
Growth length (day)	9	7	9	7	10	10
Growth height	1–2 inches	1–2 inches	1–2 inches	1/2-2 inches	3-4 inches	3-4 inches
Macro-elements per mg/100 g of Fresh Weight (FW)						
Calcium (Ca)	88 mg	75 mg	80 mg	56 mg		74.0 mg
Magnesium (Mg)	51 mg	39 mg	52 mg	49 mg		26.4 mg
Phosphorous (P)	69 mg	65 mg	69 mg	81 mg		54.4 mg
Potassium (K)	326 mg	240 mg	283 mg	283 mg		436 mg
Sodium (Na)	52 mg	25 mg	51 mg	42 mg		49 mg
Nitrates (NO ₃)	267 mg	368 mg		226 mg		127 mg
Micro-element minerals per mg/100 g FW						
Iron (Fe)	0.67 mg	0.62 mg	0.72 mg	0.67 mg		
Zinc (Zn)	0.37 mg	0.36 mg	0.37 mg	0.43 mg		
Copper (Cu)	0.09 mg	0.08 mg	0.09 mg	0.11 mg		

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Manganese (Mn)	0.37 mg	0.31 mg	0.44 mg	0.30 mg		
Cadmium (Cd)	< 0.0001mg	< 0.0001mg	< 0.0001mg	< 0.0001mg		
Lead (Pb)	< 0.0001mg	< 0.0001mg	< 0.0001mg	< 0.0001mg		
Vitamin Content						
Vitamin A (β -carotene)	221.80 mg	11.5 mg	5.4 mg	6.1 mg		8.2 mg
Vitamin C (Ascorbic Acid)	51.0 mg	147.0 mg	73.2 mg	70.7 mg		50.5 mg
Vitamin E (tocepherol)	24.1 mg	24.1 mg	19.4 mg	87.4 mg		35.0 mg
Vitamin K (Phylloquinone)	2.8 ug	2.8 ug	1.7 ug	1.9 ug		3.1 ug
Antioxidant bioactive compounds (Bioaccessibility %)						
Glucoraphanin	0.67 μ mol / g	4.8 μ mol / g				
Total isothiocyanates (sulforaphane)	633.11mg, 32.30%					
Total anthocyanins (cyanidin-3-glucose)	12.66, 0%	12.44, 0%				
Total soluble polyphenols	2017.38, 70.09%			465,5 mg		
Other Nutrients						
Fiber	410 mg	410 mg	410 mg	410 mg		
Protein	2300 mg	2300 mg	2300 mg	2300 mg		

Selected Sources:

1. DOI: [dx.doi.org/10.1021/jf300459b](https://doi.org/10.1021/jf300459b) | J. Agric. Food Chem. 2012, 60, 7644–7651
2. DOI: [10.1021/acs.jafc.8b03096](https://doi.org/10.1021/acs.jafc.8b03096) J. Agric. Food Chem. 2018, 66, 11519–11530
3. DOI: 10.4172/2376-0354.1000190 J. Hortic 3:190
4. Sun Z, Chen J, Ma J, Jiang Y, Wang M, Ren G, Chen F. Cynarin-rich sunflower (*Helianthus annuus*) sprouts possess both antiglycative and antioxidant activities. Journal of agricultural and food chemistry. 2012; 60(12): 3260-3265.
5. Ho CH., Lin YT., LABBE R.G., and Shetty K. Inhibition of *Helicobacter Pylori* by Phenolic extracts of Sprouted Peas (*Pisum Sativum* L.) Journal of Food Biochemistry. 2006; 30: 21-34.

Notes:

According to the United States Department of Agriculture (USDA), broccoli microgreens calories are about 31 calories per 100 g of fresh weight (FW).

Broccoli microgreens protein is about 2.3 g per 100 g FW.

Broccoli microgreen carbs are about 7 gm per 100 g FW of produce.

Microgreens are excellent sources of phytonutrients.

Brassica microgreens were the richest in phenolic antioxidants.