# SWISS CHARD



#### **Swiss Chard**

Dark leafy greens with vibrantly colored stems and veins are trademark features of Swiss chard (Beta vulgaris subsp. cicla). This plant is a mineral delivery powerhouse. Eating Swiss chard and other green, leafy vegetables improves your food



#### Phytoactives

#### Lignans

Cross-linked phenolic compounds that make up plant cell walls and are insoluble fibers that aid in fecal bulking and feed some gut bacteria

Secoisolariciresinol (0.07 mcg/g)\*

#### Chlorophyll

Green pigment in plants with potential anti-inflammatory, antioxidant, and anti-bacterial activity

#### **Carotenoids**

Antioxidants with anti-cancer potential and may lower risk of macular degeneration

Lutein (145 mcg/g)\*\*

Zeaxanthin (10.6 mcg/g)\*\*

#### Carotenoids

Antioxid<mark>ants with anti-cancer potential and may l</mark>ower risk of macular degeneration

#### Flavonols

Beta Carotene (52.26 mcg/g)\*\*

Phytoactive compounds that promote antioxidant activity

and promote vascular health

Kaempferol (92 mcg/g)\* Myricetin (22 mcg/g)\*

Ouercetin (75 mcg/g)\*

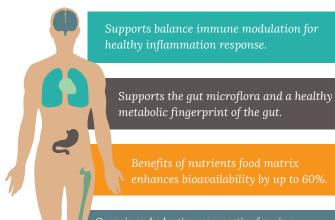
#### **Betalains**

Natural pigments with antioxidant, anti-cancer, antilipidemic, and anti-microbial properties

Betacyanins<sup>2</sup>

Betaxanthins<sup>2</sup>

#### What is the Whole Food Matrix?



Organic and adaptive regenerative farming techniques delivers nutrient dense source of key phytonutrients and helps balance healthy lifestyles.

Increased intake of vegetables and fruits in whole food nutrition influences individual epigenetic expression of our health potential.



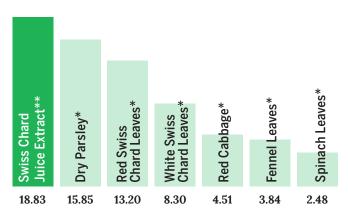
#### Gallic Acid Equivalence

#### What is GAE?

GAE, or "gallic acid equivalence," indicates levels of important phytoactives available in the plant and extracts. GAE is derived by comparing to the gallic acid reference standard, a simple phenolic substance. Studies have shown that phytoactives in plants contribute to their beneficial effect on development of chronic diseases.

#### Total Phenolic Concentration

Measured: Total Phenolics as Gallic Acid Equivalence (mg/g)



<sup>\*</sup> Data is mean values from Phenol-Explorer Database<sup>1</sup>

Values subject to change based on strain and experimental methods

#### **Key Nutrients**

Percentages shown as %DV per 5g of dry Swiss chard extract

#### Vitamin K

Vital for blood clotting and healthy bones.



Used by the body to make red blood cells, hormones, and connective tissue.



### Magnesium

Involved in many different regulatory processes including muscle and nerve function, blood glucose regulation, blood pressure, and protein, bone, and DNA production.



#### Selenium

Important for body processes like reproduction, thyroid gland function, DNA production, and free radical protection.



#### **Potassium**

Nutrient supporting healthy blood pressure.



#### Other Nutrients

(in order of %DV per 5g dry Swiss chard extract)

Riboflavin (Vitamin B2) Fiber Copper Manganese

Biotin (Vitamin B7) Choline Vitamin E (Alpha-tocopherol)

Pantothenic acid (Vitamin B5) Folate (Vitamin B9)

Calcium

Protein

Niacin (Vitamin B3)

Phosphorus

Vitamin B6 (Pyridoxal 5'Phosphate)

Lipids

Thiamin (Vitmain B1)

Carbohydrate

## WholisticMatters

We are dedicated to advancing the latest insights and information available in nutrition therapy and clinical nutrition and to presenting only the most balanced, credible, and reliable clinical nutrition and science available.

#### WholisticMatters.com

©2019 Standard Process Inc.

#### References

- Rothwell, J.A., et al., Phenol-Explorer 3.0: a major update of the Phenol-Explorer database to incorporate data on the effects of food processing on polyphenol content. Database, 2013. 2013: p. bat070-bat070.
- Kugler, F., F.C. Stintzing, and R. Carle, Identification of betalains from petioles of differently colored Swiss chard (Beta vulgaris L. ssp. Cicla [L.] Alef. Cv. Bright Lights) by high-performance liquid chromatography – electrospray ionization mass spectrometry. Journal of Agricultural and Food Chemistry, 2004. 52(10): p. 2975-2981.

<sup>\*\*</sup> Data on file with WholisticMatters