

NitroGreens™

All Organic Whole Food Concentrate

For Healthcare Professionals Only

In recent years greens products have gained popularity as a means to incorporate high amounts of antioxidants, and by virtue of their constituents, add a considerable increase to the number of daily servings of fruits and vegetables. In regard to their health contribution, green drinks have been accredited to having an alkalinizing effect on the body. The typical American (Western) diet is highly acidic in nature, predominantly due to commercial processing, along with the fact that a high proportion of the diet consists of meat, dairy, and sugars. As a consequence the internal pH is chronically acidic, and thus not within the optimal range. Being alkalizing in nature, greens products serve as an ideal balance to the typical American diet.

An increased intake of various phytonutrients derived from fruit and vegetable juice concentrates has shown to result in a stimulatory effect on the immune system, as evidenced by an increase in the circulating population of T cells (gammadelta type). This effect was accompanied by a 40% reduction in lymphocyte DNA damage. Additionally, an increased phytonutrient intake has been associated with a significant increase in accompanying nutrients, including vitamin C, beta-carotene, lycopene, and lutein, all of which were correlated to a notable increase in antioxidant capacity.

Acerola cherry (*Malpighia glabra* L.) extract is reputed for its extremely high vitamin C content, as well as its content of carotenoids and bioflavonoids, and is preferentially indicated for use as an antioxidant. Studies have attributed its properties to its hepato-protective action, shown to reduce hepatic inflammation markers, which included AST, ALT and GGT. The action was correlated to the strong radical scavenging activity, as to attenuate hepatic lipid peroxidation, which was attributed to its high degree of DPPH (2,2-diphenyl-2-picrylhydrazyl hydrate) radical scavenging activity. The polyphenols from Acerola have also shown to inhibit advanced glycation end product (AGE) formation, a functional complication in diabetes mellitus.

Alfalfa (*Medicago sativa*) juice has diuretic properties and is known for its isoflavones, which include glycosides, genistein and daidzein. Nutritionally alfalfa is high in minerals and rich in vitamins A, D, E, B6 and K, as well as chlorophyll.

Barley Juice (*Hordeum vulgare*) Barley administration has been associated with the ability to downregulate TNF alpha. In addition it has demonstrated the ability to scavenge reactive oxygen species (ROS). Barley juice has also demonstrated a beneficial effect on lipid levels, representing an improvement in both LDL-C and total cholesterol in moderately dyslipidaemic subjects.

Beet Juice (*Beta vulgaris* L.) – Red beets (*Beta vulgaris* L.) have been classified as a class of natural dietary cationic antioxidants, referred to as betalains. The betalains are derivatives of betalamic acid, which have been further categorized into the betacyanins, being red-violet in color, and the betaxanthins, being yellow. Lipid peroxidation and heme decomposition have shown to both be inhibited by betanin and betanidin, even at very low concentrations. This anti-inflammatory action was confirmed by other studies as well. One indicating that betanin is an effective component in the prevention of copper induced lipid oxidation, and a separate study indicating that the anti-inflammatory action of betalains resulted via their scavenging action, specifically that of hypochlorous acid, a powerful oxidant produced by neutrophils, and a contributor to the damage caused as a result of inflammation.



For additional information call: (800) 231 - 5777

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Broccoli sprouts (*Brassica ruvo*) – The nutritional profile of broccoli includes a high concentration of Calcium, the Vitamins C, A and K, and is a rich source of the antioxidants beta carotene, lutein and zeaxanthin. Broccoli sprouts are noted to contain an abundant supply of the chemoprotective compounds glucosinolates and isothiocyanates, both of which have shown to induce phase 2 detoxification enzymes, and to boost antioxidant status. The isothiocyanate extract from broccoli sprouts was also shown to have antiproliferative activity, which resulted in activation of the mitochondria-mediated apoptosis pathway.

Carrot juice (*Daucus carota*) – Carrots have a broad nutritional profile, being relatively high in both potassium and vitamin A, in addition to alpha and carotene, lutein and zeaxanthin.¹⁰ Documented evidence has indicated that carrot extract is an effective immunomodulator, as evidenced by a significant increase in lymphocytes, monocytes, neutrophils and platelet counts. A number of studies have confirmed the powerful antioxidant capacity of beta carotene. For example, in a study with cigarette smokers on an experimentally high polyunsaturated fatty acid diet, incorporation of a beta carotene rich diet resulted in a 2.6-fold ($P < 0.01$) increase in the plasma beta carotene level, which was shown to be partially protectant on the oxidation of LDL.

Cauliflower sprout (*Brassica oleracea*), and Kale (*Brassica oleracea*) - Like broccoli both Cauliflower and Kale are members of the family of cruciferous vegetables. Cruciferous vegetables are known to contain high levels of isothiocyanate sulforaphane, which has shown to be a potent cellular protectant, particularly against carcinogens, via the induction of phase 2 enzymes detoxification enzymes, including quinine reductase oxidoreductase, and glutathione S-transferases. This effect has been particularly notable in retinal tissues in which sulforaphane was observed to protect both the keratinocytes and retinal pigment epithelial cells against photooxidative injury. This protective effect was also noted in a separate study in which the authors showed a protective mechanism towards retinal pigment epithelial (RPE) cells by sulforaphane, indicating an "indirect antioxidant activity of plant-derived phase 2 inducers."

Grasses – Kamut (*Triticum polonicum*), Oat grass and Wheat grass (*Triticum aestivum*) – The health benefits of grasses have been primarily attributed to their high chlorophyll content, as well as their water-soluble proteins and organic compounds. Wheat grass juice in particular has shown to have a significant effect on the reduction and severity of rectal bleeding. Of particular note is the fact that the grasses are free of gluten.

Taken together there is a positive correlation between the daily consumption a green product, and the incidence of overall disease. One study demonstrated a significant reduction in the overall disease activity index ($P = 0.031$), as well as in the severity of rectal bleeding ($P = 0.025$) in patients with active distal ulcerative colitis with the administration of wheat grass juice.

Supplement Facts

Serving Size: 8 gm (1 scoop)

Servings Per Container: 30

	Amount Per Serving	% Daily Value†		Amount Per Serving	% Daily Value†
Calories	26		Proprietary Blend	8 gm	
Calories from Fat	5		Organic Grass Juices (barley, wheat, oat, alfalfa, kamut)		*
Total Fat	0.5 gm	1%	Organic Vegetable Sprout concentrates (broccoli, cauliflower, kale)		*
Total Carbohydrates	4 gm	1%	Organic Vegetable Juices (beet, carrot)		*
Sugars	2 gm		Organic Acerola berry extract		*
Sodium	54 mg	2%	Organic Peppermint leaf		*
Protein	2 gm	4%			
Vitamin A (carotenoids)	1,800 IU	36%	Stevia leaf extract	17 mg	*
Vitamin C	60 mg	100%			
Calcium	60 mg	6%			
Iron	4 mg	22%			

Other ingredients: Silica dioxide (10 mg).

All Natural Ingredients

100% Organic Proprietary Blend of Juices, Extracts and Concentrates

High ORAC Value: 3,250 per serving of **NitroGreens™**

SUGGESTED USE: Blend one serving of **NitroGreens™** with 8 ounces of water or other beverage (i.e. protein drink or smoothie) each day.

WARNING: Accidental overdose of iron-containing products is a leading cause of poisoning in children under 6. Keep this product out of reach of children. In case of accidental overdose, call a doctor or poison control center immediately.

KEEP OUT OF REACH OF CHILDREN

Store in a cool, dry area.

Sealed with an imprinted safety seal for your protection.

NDC# 55146-01111 Rev. 6/07

Product #: 1111
Contains: 8.5 ounces
NDC: 55146-01111

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