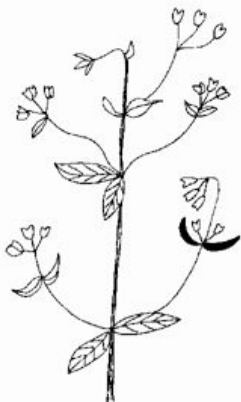


# STEVIA POWDER



**One pound (16 oz)**

**Retail price: \$20.00**

**Description:** Raintree's stevia leaf powder (*Stevia rebaudiana*) has been milled into a fine powder which is suitable to stuff into capsules or to prepare your own teas, tinctures or extracts. This is the natural green leaf, and not the white powder extract as sold by other companies. It has been sustainably wild-harvested in the Brazilian Amazon and it is rich in active and beneficial phytochemicals that occur naturally in this plant. Over 100 phytochemicals have been discovered in stevia thus far. It is rich in terpenes and flavonoids. The constituents responsible for stevia's sweetness were first documented in 1931, when eight novel plant chemicals called glycosides were discovered and named. Of these eight

glycosides, one called *stevioside* is considered the sweetest—and has been tested to be approximately 300 times sweeter than sugar.\* *Stevioside*, comprising 6-18% of the stevia leaf, is also the most prevalent glycoside in the leaf. Other sweet constituents include *steviolbioside*, *rebaudiosides A-E*, and *dulcoside A*.\* For more complete information on this rainforest plant, please see the Raintree Nutrition internet website and online [Tropical Plant Database](#).

**Traditional Uses:**\* as a natural sweetener; for diabetes; for high blood pressure; for cavity prevention; as a weight loss aid

**Ingredients:** 100% pure stevia leaves (*Stevia rebaudiana*). No binders, fillers or additives are used.

**Suggested Use:** This plant is best prepared as an infusion (tea). Use one teaspoon of powder for each cup of water. Pour boiling water over herb in cup and allow to steep 10 minutes. Strain tea (or allow settled powder to remain in the bottom of cup) and drink warm. It is traditionally taken in 1/2 cup amounts, 3-4 times daily. This plant can be added to other herbs or beverages, stuffed into capsules, or simply stirred into water or juice.

**Contraindications:** None reported.

**Drug Interactions:** In large amounts, it may potentiate antihypertensive and antidiabetic medications.

**Other Observations:**

- Stevia leaf (at dosages higher than used for sweetening purposes) has been documented to have a hypoglycemic effect. Those with diabetes should use high amounts of stevia with caution and monitor their blood sugar levels as medications may need adjusting.
- Stevia leaf has been documented to have a blood pressure lowering effect (at dosages higher than used for sweetening purposes) . Persons with low blood pressure should avoid using large amounts of stevia and monitor their blood pressure levels accordingly for these possible effects.

**Clinical Documentation and Research:**\* This Raintree product has not been the subject of any clinical research. Available third-party documentation and research on stevia can be found at the Raintree website or at [PubMed](#). A partial listing of the published third party research on stevia is shown below:

**Hypotensive & Heart Tonic Actions:**

Ferri, L. A., et al. "Investigation of the antihypertensive effect of oral crude stevioside in patients with mild essential hypertension." *Phytother. Res.* 2006 Sep; 20(9): 732-6.

Shiozaki, K., et al. "Inhibitory effects of hot water extract of the Stevia stem on the contractile response of the smooth muscle of the guinea pig ileum." *Biosci. Biotechnol. Biochem.* 2006 Feb; 70(2): 489-94.

Wong, K. L., et al. "Antiproliferative effect of isosteviol on angiotensin-ii-treated rat aortic smooth muscle cells." *Pharmacology.* 2006 Feb; 76(4): 163-169.

Wong, K. L., et al. "Isosteviol acts on potassium channels to relax isolated aortic strips of Wistar rat." *Life Sci.* 2004 Mar; 74(19): 2379-87.

Wong, K. L., et al. "Isosteviol as a potassium channel opener to lower intracellular calcium concentrations in cultured aortic smooth muscle cells." *Planta Med.* 2004; 70(2): 108-12.

Hsieh, M. H., et al. "Efficacy and tolerability of oral stevioside in patients with mild essential hypertension: a two-year, randomized, placebo-controlled study." *Clin. Ther.* 2003; 25(11): 2797-808.

Chan, P., et al. "A double-blind placebo-controlled study of the effectiveness and tolerability of oral stevioside in human hypertension." *Br. J. Clin. Pharmacol.* 2000; 50(3): 215-20.

Melis, M. S. "A crude extract of *Stevia rebaudiana* increase the renal plasma flow of normal and hypertensive

rats." *Braz. J. Med. Biol. Res.* 1996; 29(5): 669–75.

Melis, M. S. "Chronic administration of aqueous extract of *Stevia rebaudiana* in rats: renal effects." *J. Ethnopharmacol.* 1995; 47(3): 129–34.

Melis, M. S. "Stevioside effect on renal function of normal and hypertensive rats." *J. Ethnopharmacol.* 1992; 36(3): 213–17.

Melis, M. S., et al. "Effect of calcium and verapamil on renal function of rats during treatment with stevioside." *J. Ethnopharmacol.* 1991; 33(3): 257–62.

Boeckh, E. M., et al. "*Stevia rebaudiana* Bertoni: Cardio-circulatory effects of total water extract in normal persons and of stevioside in rats and frogs." First Brazilian Seminar on *Stevia rebaudiana*, Inst. Technol.

Aliment. Campinas, Brazil, June 25-26, 1981.

Humbolt, G., et al. "Steviosideo: Efeitos Cardio-circulatorios em Ratos." V Simposio de Plantas Mediciniais do Brasil. 1978; (4–6): 208.

### **Hypoglycemic & Anti-diabetic Actions:**

Chen, J., et al. "Stevioside counteracts the glyburide-induced desensitization of the pancreatic beta-cell function in mice: studies in vitro." *Metabolism.* 2006 Dec; 55(12): 1674-80.

Ferreira, E. B., et al. "Comparative effects of *Stevia rebaudiana* leaves and stevioside on glycaemia and hepatic gluconeogenesis." *Planta Med.* 2006 Jun; 72(8): 691-6.

Chang, J. C., et al. "Increase of insulin sensitivity by stevioside in fructose-rich chow-fed rats." *Horm. Metab. Res.* 2005; 37(10): 610-6.

Chen, T. H., et al. "Mechanism of the hypoglycemic effect of stevioside, a glycoside of *Stevia rebaudiana*." *Planta Med.* 2005; 71(2): 108-13.

Dyrskog, S. E., et al. "Preventive effects of a soy-based diet supplemented with stevioside on the development of the metabolic syndrome and type 2 diabetes in Zucker diabetic fatty rats." *Metabolism.* 2005; 54(9): 1181-8.

Abudula, R., et al. "Rebaudioside A potently stimulates insulin secretion from isolated mouse islets: studies on the dose-, glucose-, and calcium-dependency." *Metabolism.* 2004; 53(10): 1378-81.

Lailerd, N., et al. "Effects of stevioside on glucose transport activity in insulin-sensitive and insulin-resistant rat skeletal muscle." *Metabolism.* 2004; 53(1): 101-7.

Gregersen, S., et al. "Antihyperglycemic effects of stevioside in type 2 diabetic subjects." *Metabolism.* 2004; 53(1):73-6.

Raskovic, A., et al. "Joint effect of commercial preparations of *Stevia rebaudiana* Bertoni and sodium monoketocholate on glycemia in mice." *Eur. J. Drug Metab. Pharmacokinet.* 2004 Apr-Jun; 29(2): 83-6.

Raskovic, A., et al. "Glucose concentration in the blood of intact and alloxan-treated mice after pretreatment with commercial preparations of *Stevia rebaudiana* (Bertoni)." *Eur. J. Drug Metab. Pharmacokinet.* 2004 Apr-Jun; 29(2):87

Gardana, C., et al. "Metabolism of stevioside and rebaudioside A from *Stevia rebaudiana* extracts by human microflora." *J. Agric. Food Chem.* 2003 Oct; 51(22): 6618-22.

Koyama, E., et al. "Absorption and metabolism of glycosidic sweeteners of stevia mixture and their aglycone, steviol, in rats and humans." *Food Chem. Toxicol.* 2003; 41(6): 875-83.

Jeppesen, P. B., et al. "Stevioside acts directly on pancreatic beta cells to secrete insulin: actions independent of cyclic adenosine monophosphate and adenosine triphosphate-sensitive K<sup>+</sup>-channel activity." *Metabolism.* 2000; 49(2): 208–14.

Yamamoto, N. S., et al. "Effect of steviol and its structural analogues on glucose production and oxygen uptake in rat renal tubules." *Experientia.* 1985; 41(1): 55–7.

Curi, R., et al. "Effect of *Stevia rebaudiana* on glucose tolerance in normal adult humans." *Braz. J. Med. Biol. Res.* 1986; 19(6): 771–74.

Suzuki, H., et al. "Influence of the oral administration of stevioside on the levels of blood glucose and liver glycogen in intact rats." *Nogyo Kagaku Zasshi* 1977; 51(3): 45.

Oviedo, C. A., et al. "Hypoglycemic action of *Stevia rebaudiana*." *Excerpta Medica.* 1970; 209: 92.

### **Antimicrobial Actions:**

Matsukubo, T., et al. "Sucrose substitutes and their role in caries prevention." *Int. Dent. J.* 2006 Jun; 56(3): 119-30.

Pinheiro, C. E., et al. "Effect of guarana and *Stevia rebaudiana* bertoni (leaves) extracts, and stevioside, on the fermentation and synthesis of extracellular insoluble polysaccharides of dental plaque." *Rev. Odont. Usp.* 1987; 1(4): 9–13.

Takahashi, K., et al. "Analysis of anti-rotavirus activity of extract from *Stevia rebaudiana*." *Antiviral Res.* 2001; 49(1): 15–24.

Takaki, M., et al. "Antimicrobial activity in leaves extracts of *Stevia rebaudiana* Bert." *Rev. Inst. Antibiot. Univ. Fed. Pernambuco.* 1985; 22(1/2): 33–9.

Tomita, T., et al. "Bactericidal activity of a fermented hot-water extract from *Stevia rebaudiana* Bertoni towards enterohemorrhagic *Escherichia coli* 0157:h7 and other food-borne pathogenic bacteria." *Microbiol. Immunol.* 1997; 41(12): 1005–9.

**Anti-inflammatory & Immune Modulation Actions:**

Boonkaewwan, C., et al. "Anti-inflammatory and immunomodulatory activities of stevioside and its metabolite steviol on thp-1 cells." *J. Agric. Food Chem.* 2006 Feb; 54(3): 785-9.

Mizushima, Y., et al. "Structural analysis of isosteviol and related compounds as DNA polymerase and DNA topoisomerase inhibitors." *Life Sci.* 2005 Sep; 77(17): 2127-40.

This product is distributed through health food stores, health practitioners, and by [Raintree Nutrition](#). Please contact a health professional concerning other observations and/or effects of this product and/or if you have any disease, condition, or illness for which you are seeking treatment or products for.

**Manufactured By:**  
**Raintree Nutrition, Inc.**  
3579 Hwy 50 East, Suite 222  
Carson City, Nevada 89701  
(800) 780-5902 (775) 841-4142  
[www.RaintreeNutrition.com](http://www.RaintreeNutrition.com)



\* The statements contained herein have not been evaluated by the Food and Drug Administration.  
This product is not intended to treat, cure, or prevent any disease.