

# ANOTHER HERB HERBERT FACT SHEET

## SPECIAL INTEREST HERBS

# STEVIA

THE SUGAR HERB  
*Stevia rebaudiana*  
Family: Aster (Compositae)

Are you looking for a sugar substitute that has virtually no calories, doesn't raise blood-sugar levels, doesn't promote tooth decay and doesn't have that chemical aftertaste like artificial sweeteners do?

Then try using the sweetest known natural product that Mother Nature has provided. Originally a native of Paraguay, Stevia's leaves are 10-15 times as sweet as table sugar but extracts may range from 100-300 times as sweet as sugar.

Stevia is a member of the Aster family (Compositae). It is a perennial shrub and grows to approx 60-100cm (24-36in) tall in full sun. Originally grown in acidic, sandy soil that borders marshes and grasslands with shallow water tables, it is however adaptable to a wide variety of soil conditions.

The sweet secret of Stevia lies in a white crystalline compound called stevioside, a glycoside composed of glucose, sophorose and steviol.



### HISTORY

This herb has been used throughout history by ancient tribes in Paraguay, Brazil and Argentina as a tea sweetener, but in 1887 a South American scientist discovered its amazing properties and brought its true value to light.

Research that began in the early 1930's by two French chemists isolated a constituent they named stevioside. They found this to be 300 times stronger than sugar and non-toxic to their laboratory animals.

During World War 2 in England, research was undertaken on the potential of Stevia as an alternative sweetener. This research was very favourable. Test plots yielded the equivalent of two tons of sugar per acre. However, the project was largely forgotten in the aftermath of the war.

By 1954 Japan also began to grow Stevia in commercial quantities. By the late sixties the Japanese government had banned certain artificial sweeteners due to health concerns and as a result the use of stevia increased dramatically. Consumer concerns about sugar-related tooth decay, obesity and diabetes also contributed to this increase. Today Japan is still the largest user of Stevia and it is used extensively for drinks and various low calorie foods as well as numerous other products.

Today, Stevia and stevioside have become major export products, with Stevia cultivated in more than a dozen countries world wide, including South America, Japan, Korea, the Philippines, Southeast Asia, Israel, California, and southern Ontario.

Stevia's pharmacological activity has also been investigated, for its effects on diabetes, blood pressure, contraception and bacterial growth. Some scientific studies have confirmed that Stevia may help regulate blood-sugar levels in normal adults. Stevioside has been used as the sweetener for toothpastes, mouthwashes, and chewing gums that have been accredited to the decrease in the incidence of tooth decay and retarding the growth of plaque. Although further research on its medical benefits is indicated, numerous biological tests indicate that Stevia and its constituents are relatively nontoxic.

Despite the fact that in the USA Stevia was widely used to sweeten herbal teas, in 1991 the Food and Drug Administration (FDA) issued an import ban that blocked sales of Stevia.

However, passing of a new act in 1994 effectively nullified the ban, and by September 1995 the FDA allowed Stevia and stevioside into the country but only if labelled as dietary supplements.



### HARVEST

This is best done when the plant begins to flower as this is when the leaf weight is at its greatest and the stevioside content is at its peak. One report from a study showed a yield of 220 pounds per acre, equivalent in sweetening power to about 28 tons of sugar.

#### How Much to Crop:

For a young plant cut the tips only, this will also encourage your plant to become bushier. Older plants as a usual rule are cut by half.

Top dress with a suitable fertiliser after pruning. To dry stevia leaves, place them in a dark, well ventilated area until dry. Alternatively place leaves in a microwave oven and cook on a low setting until crisp.



### HOW TO USE STEVIA

Two or three leaves of Stevia are enough to sweeten a cup of tea, Coffee, or other beverage.

Green stevia powder (pulverised dried leaves) is 10 to 15 times as sweet as sugar: use 1 1/2 to 2 tablespoons to replace 1-cup sugar. Start with a small amount and add more to taste.

Stevia can be combined with other sweeteners if desired. Stevia does not caramelise like sugar, unfortunately it cannot be used in meringues. The green powder may tint the food slightly, depending on how much you use.

It is generally preferable to use the less processed stevia products such as whole leaves, the green powder, or simple extracts.



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