

Stevia rebaudiana

Common Name – Sweet Leaf (Stevia)

Abstract

Stevia is a sweetener and sugar substitute derived from the leaves of the plant species *Stevia rebaudiana*, native to Brazil and Paraguay. The active compounds are steviol glycosides (mainly stevioside and rebaudioside), which have 30 to 150 times the sweetness of sugar, are heat-stable, pH-stable, and not fermentable. The body does not metabolize the glycosides in stevia, so it contains zero calories like some artificial sweeteners. Stevia's taste has a slower onset and longer duration than that of sugar, and some of its extracts may have a bitter or licorice-like aftertaste at high concentrations.

The legal status of stevia as a food additive or dietary supplement varies from country to country. In the United States, high-purity stevia glycoside extracts have been generally recognized as safe (GRAS) since 2008, and are allowed in food products, but stevia leaf and crude extracts do not have GRAS or Food and Drug Administration (FDA) approval for use in food. The European Union approved stevia additives in 2011, while in Japan stevia has been widely used as a sweetener for decades.

Commercial use

In the early 1970s, sweeteners such as cyclamate and saccharin were gradually decreased or removed from a variant formulation of Coca-Cola. Consequently, use of stevia as an alternative began in Japan, with the aqueous extract of the leaves yielding purified steviosides developed as sweeteners. The first commercial stevia sweetener in Japan was produced by the Japanese firm Morita Kagaku Kogyo Co., Ltd. in 1971. The Japanese have been using stevia in food products and soft drinks, (including Coca-Cola), and for table use. In 2006, Japan consumed more stevia than any other country, with stevia accounting for 40% of the sweetener market.

As of 2006, China was the world's largest exporter of stevioside products. In the mid-1980s, stevia became popular in U.S. natural foods and health food industries, as a noncaloric natural sweetener for teas and weight-loss blends. The makers of the synthetic sweetener NutraSweet (at the time Monsanto) asked the FDA to require testing of the herb. As of 2006, China was the world's largest exporter of stevioside products. In 2007, the Coca-Cola Company announced plans to obtain approval for its stevia-derived sweetener, Rebiana, for use as a food additive within the United States by 2009, as well as plans to market Rebiana-sweetened products in 12 countries that allow stevia's use as a food additive. In May 2008, Coca-Cola and Cargill announced the availability of Truvia, a consumer brand stevia sweetener containing erythritol and Rebiana. which the FDA permitted as a food additive in December 2008. Coca-Cola announced intentions to release stevia-sweetened beverages in late December 2008. From 2013 onwards, Coca-Cola Life, containing stevia as a sweetener, was launched in various countries around the world.

Shortly afterward, PepsiCo and Pure Circle announced PureVia, their brand of stevia-based sweetener, but withheld release of beverages sweetened with rebaudioside A until receipt of FDA confirmation. Since the FDA permitted Truvia and PureVia, both Coca-Cola and PepsiCo have introduced products that contain their new sweeteners.