

Stevia rebaudiana - Bio sweetner of future

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During the last two decades, the changes in modern life style and food habits like excessive sugar intake have resulted in obesity and diabetes in majority of people. In order to cater the needs of such people, the market is flooded with many artificial sweeteners. However, a regular use of these sweeteners resulted in many toxic effects. Hence, there is great search world wide to find a new, non-caloric sweetener without any side effects.

Stevia is small perennial shrub with green leaves that belongs to the aster (Asteracea) or chrysanthemum family of plants. Stevia rebaudiana is the only species at present which possesses an inordinate ability to sweeten. In common forms is known as stevioside, a fine white powder extracted from the leaves of the plant.

The leaves of Stevia shrub contain specific glycosides which produce a sweet taste but have no caloric value. Stevioside is the primary glycoside involved in this effect. Dulcoside and rebaudioside are also major glycosides contained in the herb. Glycosides are organic compounds and which contain a sugar component (glycone) and a non-sugar component (aglycone). The glycone constituent may be comprised of rhamnose, fructose, glucose, xylose, arabinose etc. The other portion may be any kind of chemical compound such as a sterol, tannin, carotenoid etc.

Stevia leaves also contain protein, fibers, carbohydrates, phosphorus, iron, calcium, potassium, sodium, magnesium, rutin (flavonoid), iron, zinc, vitamin C and vitamin A human physiology cannot metabolize the sweet glycosides contained in the stevia leaves, therefore they are eliminated from the body which no caloric absorption. Stevia unlike aspartame, can be used in making because its sweet glycosides do not break down when treated.

Stevia is herb with incredible sweetening power. Its ability to sweeten is rated between 70 to 400 times than that of white sugar. Typically, it has mild licoride-like

taste and is a completely natural in its biochemical profile. What makes stevia so intriguing is that unlike other sweetening agents it is completely calorie-free, never initiates a rise in blood sugar, and does not produce "food" for microorganisms like bacteria and yeasts.

Stevia may well be the most remarkable sweetener in the world and yet its recognition in this country remains relatively low. Consider the extraordinary attitudes of the stevia plant and its extracts:

- It is diabetic-safe.
- It is caloric-free.
- It is 50 to 400 times sweeter than white sugar.
- It does not adversely effect blood sugar levels.
- It is non-toxic.
- It inhibits the formation of cavities and plaque.
- It contains no artificial ingredients.
- It can be used in baking and cooking.

While the white sugar, turbinado, fructose, honey and corn-syrup all qualify as natural sweeteners. None of these are calorie-free nor can be used by people who suffer from blood sugar disorders. They can encourage, weight gain, tooth decay, raise blood sugar quickly, and can also predispose certain individuals to yeast infections. These sugar can be also contribute to indigestion, bowel disorders and possibly, hyperactivity to ADD in children.

Pharmaceutical sweeteners like aspartame and saccharin qualify as calorie-free but come with significant limitations and health risks. Saccharin has been labeled with a warning that it has caused the development of cancer in laboratory animals but is still available for purchase.

Stevia : the ideal sweetner:

For anyone who suffers from diabetes, hypoglycemia, high blood pressure, obesity or chronic yeast infections, stevia is the ideal sweetener. It has all the benefits of artificial sweeteners and more of the drawbacks. Stevia can be added to variety of the food to sweeten them without adding calories or impacting the pancreas or adrenal glands. It can help to satisfy carbohydrate cravings without interfering with blood and sugar levels or adding the extra pounds.

Using stevia to create treats for children is also another excellent way to avoid weight gain, tooth decay

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