

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 is 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 to 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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and possible hyper-activity. While it may take some getting used to initially, stevia products are becoming easier to measure and better tasting.

Stevia's unique taste sensation:

When the whole leaf extract or powdered forms of stevia make contact with the tongue, the resulting taste can be described as a sweet flavor, with a slight licorice-like and transient bitter flavor.

Additional therapeutic benefits:

Stevia is not only non-toxic, but has several traditional medicinal uses. The Indian tribes of South America have used it as a digestive aid, and have also applied it topically for years to heal wounds. Recent clinical studies have shown it can increase glucose tolerance and decrease blood sugar levels. Of the two sweeteners, (aspartame and stevia) stevia wins hands down for safety.

Stevia and blood sugar levels:

Clinical tests combined with consumer results indicate that stevia can actually help to normalize blood sugar. For this reason, the herb and its extracts are recommended in some countries as an actual medicine for people suffering from the diabetes or hypoglycemia. Recent studies have indicated that stevia can increase glucose tolerance while decreasing the blood sugar levels.

Stevia and weights loss:

Stevia is an ideal dietary supplement for anyone who wants to lose or maintain their weights. Because it contains no calories, it can satisfy cravings for sweets without adding the extra pounds. Some people have found that their hunger decreases if they take stevia drops 15 to 20 minutes before meal.

Microorganism indicator :

Stevia is thought to be able to inhibit the growth of certain bacteria and other infectious organisms. Some people even claim that using the stevia helps to prevent the onset of colds and flu. The fact that the stevia has ability to inhibit the growth of certain bacteria helps to explain its traditional use in treating use the wounds, sores and gum disease.



Oral tonic:

Stevia can be used as an oral tonic to prevent the tooth decay and gingivitis. Stevia extracts are sometimes

added to tooth-paste or mouthwashes to initiate this effect. Stevia is used in some Brazilian dental products with the assumption that the herb can actually help to prevent the tooth decay and retard the plaque deposits. Stevia offers the perfect sweetener for oral products like toothpastes, and mouthwash and enabling them to be more palatable without any of the drawbacks and other sweeteners.

Stevia and skin care:

Whole leaf stevia or its by-products have been used to soften and tone the skin and to ease wrinkles and lines. Facial marks can be made by adding the liquid to the powder, and liquid elixirs can be used to facial toners to help the tighten the skin.

Primary applications of stevia:

- Diabetes
- Obesity
- Plaque retardant
- Hyperactivity
- High blood sugar
- Carbohydrate cravings
- Tobacco and alcohol cravings
- Hypoglycemia
- Indigestion
- Dental decay
- Yeast infections
- Oral health
- Skin toning and healing

If you fall into the category of consumer who is searching for an excellent natural sweetening agent which is safe, powerful, and calorie-free, stevia extracts should be first of your list. Ironically, while enormous quantities of aspartame and saccharine continue to be consumed in this country, a sweeter is to be rigorously regulated. Fortunately, restrictions are easing and it is now possible to purchase the stevia as a supplement.

Both xylitol and saccharine have been linked to tumour development and aspartame continues to prompt controversy in its period wide ranges of negative side effects, yet all of these products enjoy unrestricted marketability. It is rather ironic that chemical compounds that have the capability of wreaking all kinds of havoc with the human psychology have the advantage over natural substances that are certainly much more benign. It is hard to imagine that a safe, natural herb which offers concentrated sweetening power and may also actually normally the blood and sugar and prevent the tooth decay remains the relatively unknown.

