Raw Organic Agave Nectar

Data Sheets and Nutritional Information

Updated 09/2008
Table of Contents

- Background Information
- Processing Description
- Food Applications
- Dietary Characteristics
- Health Benefits
- Profiles of Comparable “Natural” Sweetners
- Product Specifications and Chemical Composition

Updated 09/2008
Agave Nectar is a natural fructose sweetener extracted from the Agave plant (Agave tequilana). Traditionally, Native Americans of Mexico gathered the sweet juice, “Aguamiel” from several varieties of Agave. They also used it as a sweetener, for special celebratory beverages. Some Agave contains a high level of polyfructose (or inulin). A gentle enzymatic process has been developed which transforms the polyfructose into simple fructose and dextrose syrup, a pure natural sweetener called Agave Nectar.

The product has a neutral flavor, thus can be used in any food or beverage, without altering and maximizing the original flavor. It keeps in moisture, and keeps foods smooth longer. Given it’s high osmotic pressure, Agave nectar also inhibits the growth of bacteria and its content of monosaccharids (when used in the right proportions) helps the fermentation process, thus can be used to make bread or baked foods, keeping them fresh, resulting in a longer shelf life.
The process start with the reception of the “aguamiel” in a small tank of stainless iron with a capacity of near 50 liters (1), through the centrifuge pump of stainless iron (2) it goes the raw material to the tanks of dairy use (3) and (4) with a capacity of 6,000 liters each one, from this tanks it goes through a centrifuge (6) using a pump (6) in which it clean from all impurity that could have. This process is repeat it the times that is necessary until the syrup takes the wished color.

The “aguamiel” once that is clean of impurity is send it through the centrifuge pump (5) to a tank (7) in which it goes to a preheated (9) using the centrifuge pump (8) until have the specific temperature, once that it has the temperature we add the enzyme to make the enzyme reaction with the purpose to convert the sacarose into high fructose and dextrose.

Once the enzyme reaction is over, the syrup goes again through the centrifuge to eliminate all material that could be in suspension, later it goes through a sparkler filter (11) using the centrifuge pump (10) in which all fine particles that stayed are spread.

Finally, the “aguamiel”, is send it to an evaporator (12) of double effect, this evaporator is used in vacuum in which the water is taking away, after that we obtain a final product that is send it to package.
Food Applications

• **Dairy.**- Acts as a body enhancer, helps to lower the freezing point of the product, it stabilizes foam and is a flavor enhancer.

• **Beverages.**- It can be used as a sweetener in energy drinks, juice, carbonated and alcoholic drinks, wines, teas. In beer and derived beverages, Agave Nectar increases its fermentability.

• **Alimentary.**- In jams and fruit products, it can be used as a sweetener. It acts as a plasticizer (forming gels) and improves the natural shine of the fruits. It gives the same properties to yogurts, puddings and ice creams. In baking it can be used in cookies, glazes, tops, creamy stuffing, cakes, muffins and donuts among other products. Its use is recommended for the manufacture of cereals such as corn flakes, puffed cereals, etc. In the manufacture of granolas and muselines, due to its hygroscopic properties it increases the shelf life of these products, depending on the used percentage.

• **Candy.**- As a sweetener, it avoids crystallization. Besides, it improves the body of the product, and in fruit-flavored products, it acts as a flavor enhancer.

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Because *Agave Nectar* is high in fructose, providing all the benefits that make fructose a preferred sweetening agent. Sweeter than refined sugar (approximately 1.4 times sweeter), fructose offers an equivalent sweetness for nearly half the amount of carbohydrate calories. Fructose does not stimulate digestive insulin secretion as do other sugars. It is less disturbing to the glycemic index, so in common terms, it does not create a “sugar rush”.

*Agave Nectar* is produced in different grades varying in flavor and color. The lighter grades of Agave Syrup are flavor-neutral, thus enhancing the natural flavors of coffee, tea, fruit beverages, baked goods, fresh fruits, fruit smoothies, salad dressings, jams and jellies, ice cream, yogurts, and various prepared foods without altering their flavor. These characteristics are a marked contrast with bee honey, maple syrup and certain other natural sugar substitutes that do alter the original flavor of the products which they sweeten.

The amber grade of the *Agave Nectar* offers the delicate flavor of Agave with increasing intensity. The amber grade is much like honey and delicious in tea, suitable to sweeten a wide variety of foods, dry and hot cereals, pancakes, waffles, baked goods, protein drinks and sauces. Heavier sauces such as BBQ, spaghetti, stews and meat glazes may be enhanced by darker grades of Agave which deliver the full, rich and complex flavors distinctive to Agave.
Dietary Characteristics

- **Agave Nectar** is easy to handle. Because of its low viscosity, **Agave Nectar** is easy to handle in an industrial setting and pours easily as a table-top sweetener. If stored at room temperature it will not harden in the bottle and pours easily.

- **Agave Nectar** is a moisture retainer. It increases the moisture retention properties of food. In bread and baked goods, **Agave Nectar** enhances product freshness due to its hygroscopic properties which act as humidifying agents, thereby increasing the shelf life of such products.

- Our **Agave Nectar** is certified organic by BIOAGRICERT (Europe). The Agave crops used in producing our Agave Syrup are completely free of agrochemicals. Growers that supply the raw material use only natural fertilizers and employ agricultural practices that meet organic certification standards.

- **Agave Nectar** is certified KOSHER PAREVE, has obtained the certification from ORTHODOX VAAD HAKASHRUT.

- Calories per serving: One serving (1 tablespoon) contain 21 grams of which 16 grams are total carbohydrates, a small portion of which is not digestible. One gram of carbohydrate provides 4 calories. Therefore, 16 grams of total carbohydrate contains 68 calories, but a few of these calories are not digestible, so the total number of calories per serving is closer to 60 calories.
**Health Benefits**

- *Agave Nectar* is the natural caloric sweetener with the lowest glycemic index. Under medical checkup type II can be used by diabetics (no insulin dependents).

- Due to its perfect sugar relation can be mixed with citruses considering itself like a natural laxative that helps the increase of the peristaltic movements, alleviating constipation problems.

- Due to its low absorption by the human organism it works like an intelligent caloric food being absorbed according to the requirements of the organism.

- The oliga-organic content helps to the good operation of the billiard vesicle (*saponification* of fats), also works against the blockade of arteries and veins caused by high cholesterol levels.

- It heightens citric flavors maintaining the acidic flavor of products. It is recommended as a natural caloric sweetener in diets of low calories for reduction and control of weight, being able to be added to nonacidic foods and drinks.

- Its concentration (75 BX means the sugar concentration), has a high osmotic pressure thus does not require preservatives meaning a longer shelf life.

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• Used in food preparation it helps to maintain the final moisture of the product maintaining the smooth fillings and prolonging the freshness of package products, is soluble in any proportion, which indicates that it can be used in all type of drinks and foods that take water in their formulation.
• It can be used in the preparation of jellies, jams and fillings that require natural or organic pectin.
• Can be used in smaller amount than synthetic saccharine or sweetener obtaining the same level of sweetener with less calories.

Updated 09/2008
Profiles of Comparable “Natural” Sweeteners

- **Crude or turbaned sugar.** - It is processed mechanically and chemically free of saccharine, just as the brown sugar, it retains the nutrients of the sugar cane, but like white sugar, retains many of the characteristics of the whitened sugar.

- **Evaporated cane juice.** - Manufacturers claim the product retains the nutritional elements of the sugar, but it is important to note that its flavor is not neutral.

- **Molasses.** - This thick and dark syrup, is the remnants of refined sugar. It is rich in nutrients and mineral, when used like a sweetener, it distributes its properties to their flavor.

- **Bee Honey.** - Contains glucose, fructose and saccharine and depending on the flowers which the bees use, its color varies. It is difficult to certify it 100% organic, since the sources of which it is elaborated vary continuously.

- **Concentrated fruit juices.** - They are extracted mainly from apple, pears and grapes are used commonly as sweeteners in the food and drink industry. Its properties though, diminish the natural flavors of the main ingredient of the product.

- **Rice syrup** - A sweetener with 50% of its contents as saccharine.

- **HFCS.- (Hihg fructose corn syrup) Is transformed chemically into fructose, for which it must be put under processes that use toxics as sulfide dioxide and the acid hydrolysis process produces toxins like acetaldehyde and hydroximetol.
## Chemical Composition

<table>
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<tr>
<th>Parameter</th>
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<tbody>
<tr>
<td>Moisture %</td>
<td>22.4-21.4</td>
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<tr>
<td>Dry matter %</td>
<td>77.4-78.4</td>
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<tr>
<td>Ash %</td>
<td>0.09-0.19</td>
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<tr>
<td>Total Carbohydrates</td>
<td>99.6-99.9</td>
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<tr>
<td>D-Fructose</td>
<td>70-72.4</td>
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<tr>
<td>Dextrose (Glucose)</td>
<td>26.6-24.2</td>
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<tr>
<td>Others</td>
<td>3-3.3</td>
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<tr>
<td>Fat %</td>
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<tr>
<td>Cholesterol</td>
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## Physical Properties

<table>
<thead>
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<th>Parameter</th>
<th>Parameters</th>
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<tr>
<td>PH</td>
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<tr>
<td>° Brix at 20°C</td>
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<tr>
<td>Conductivity uS</td>
<td>13.4-17.5</td>
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<tr>
<td>Dispersability in water</td>
<td>Excellent</td>
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<tr>
<td>Taste</td>
<td>Varies according to code</td>
</tr>
<tr>
<td>Color</td>
<td>Varies according to code</td>
</tr>
</tbody>
</table>

Updated 09/2008
# Product Specifications

## Microelements (ppm)
- **Copper**: Max. 1
- **Iron**: Max. 1
- **Sodium**: Max. 5
- **Calcium**: Max. 15
- **Potassium**: Max. 10
- **Magnesium**: Max. 10
- **Heavy metals**: None detected

## Microbiology
- **Total aerobic plate count**: Max 200 CFU/g
- **Yeast and mold count**: Max 15 CFU/g
- **Total coliform count**: Absent in 1 g
- **Staphylococcus Aureaus**: Absent in 1 g
- **Bacillus Cereus**: Max 15 CFU/g
- **Salmonella**: Absent in 25 g

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