

# **Shocking! There is much misinformation about agave syrup and its production process.**

## **The Truth**

We've been following with interest the article "Shocking! This 'Tequila' Sweetener is Far Worse than High Fructose Corn Syrup" the last couple of days. It is amazing how powerful internet is in terms of informing or in this case misinforming people.

It is obvious that the article was written by a person with more than just passing knowledge about the production of High Fructose Corn Syrup, but less than a limited knowledge about the production of agave syrup. Perhaps, this is the reason the author constantly confuses one with the other. A clear example of the limited knowledge of the agave showed in the article is the head line where the agave syrup is erroneously called tequila sweetener; but in order to make tequila the piñas (agave cores) are cooked then crushed to extract the juice and proceed to distillation process, in the case of agave syrup the piñas are directly crushed to extract the juice and then the juice goes through filtration and hydrolysis.

We would seriously recommend and encourage the author to pay a visit to our factory or even visit any other producer's factory in Mexico and learn as much as possible about the product and the process before writing anything else about this topic.

In short: We are committed to bringing the best and purest agave syrup to market. For the past nine years we have made strategic capital investments in the following areas that we believe support and reflect our commitment to the long-term sustainability of this market:

- Organic Farming, Cultivation, and Production;
- Fair Trade with our farmers;
- State of the Art Production Facilities;
- Continuous Quality Control; and
- Research and Development

## **The Facts**

### **Absolutely not refined at all**

Due the agave plant provides naturally enough fructose, it does not require to be modified by any external chemical or natural substance to increase the percentage of fructose, therefore no need to refine it, it is just pure and natural.

### **Absolutely not highly processed**

The process of the agave syrup does not involve enzymes or chemicals of any kind. The aforementioned chemicals in the article are used specifically in the HCFS industry, not in the blue agave syrup industry.

### **Agave syrup is 100% natural**

As you can see in the process description below, agave has a very simple process, free of any enzymes, chemicals or other synthetic substances. There is absolutely nothing added in the process of the agave “piñas” with the exception of a small amount of water used in the mechanical extraction step, which facilitates the extraction of the juice from the crushed piñas. Later on in the process this water is removed during the evaporation process.

### **Agave is not super-condensed**

There is only one evaporation step in the process and it is done to remove the excess water. The promise to customers is to deliver pure agave syrup and that’s how it’s done.

### **Description of the agave syrup process**

- 1) Picking the agave from the fields. Only the core also known as “piña” is used, the leaves and roots are cut off and left in the fields to enrich the soil for the next planting;
- 2) Mechanical extraction of the juice (inulin) and filtration of the solid fibers;
- 3) Hydrolysis or cooking of the juice to break the inulin chains into fructose;
- 4) High vacuum evaporation to extract the excess water; and finally
- 5) Bottling.

Our blue agave syrup is produced according the industrial standards promulgated by the Government of Mexico (NMX-FF-110-SCFI-2008 Productos Alimenticios – Jarabe de Agave Explicaciones y Métodos de Prueba), which states the chemical characteristics the product must have in order to be called blue agave syrup. We take samples and maintain records of every batch of our blue agave syrup to document our continued compliance.

### **About quality control**

We can not speak for every facility that produces agave syrup but in our case we are open for anyone to witness how we work and what kind of controls we have in place. We can say that we have SGS third party audit, HACCP plan, BCS organic certification, KMD Kosher certification and work continually to improve ourselves and our operations.

Regarding the fields, those are being systematically tested to ensure the optimal conditions of the plants and the soil. We also work with our farmers to ensure that the agave crop meets today’s demand as well as tomorrow’s. A basic premise of our growing operation is our commitment to fair trade in which we pay over 30% more of the commercial price for the agave so the farmers involved can enjoy the fruits of their labor and improve their living conditions.

Our production facilities have state of the art technology and equipment, the walls and ceilings are of stainless steel, and we have instituted a sustainable process to recycle the water used in the mechanical extraction process.

### **Color Varieties of the agave syrup**

Regarding the colors available, they can range from the very light yellow to the dark amber. In determining the color, temperature is the key factor. We can provide four different colors upon the client's request. In spite of contrary information, the color is controlled by us and is not subject to conditions beyond our control.

### **Raw Agave Syrup**

In spite of contrary suppositions, the raw agave syrup is not produced from the sap because that would indicate the use of the leaves of the agave plant. For raw agave, the production is the same as regular agave with the significant distinction that the temperature never goes over 118°F during hydrolysis or any other step; obviously the process at this low temperature takes longer time.

### **Mixing?**

As a producer we never mixed agave syrup with corn syrup or any other product, and we never will. It is not within our interest to sacrifice our long-term sustainability for a short-term gain.

### **Is there Blue Agave shortage in México?**

It is true that blue agave crop is limited relative to other commodities such as corn and sugar cane. However, with over 80,000 hectares of blue agave in cultivation, there is no basis that there is a danger of shortages. Blue agave will never replace the large-scale demand for sugar and corn syrup, but rather there is ample supply to meet the demands of the discerning consumer seeking a healthy and all natural alternative sweetener

### **Regarding HMF**

This element is present also in honey and it is allowed to comprise up to 40 Mg/Kg and in some cases up to 80 Mg/Kg. (Alimentary Codex Norma para la miel STAN 12-1981 / OMS & FAO) In our agave syrup HMF is allowed and specified by the NMX-FF-110-SCFI-2008 to comprise up to 40 Mg/Kg. We strictly control it and so far we have an average of 14 Mg/Kg of HMF presence in our agave syrup.

### **No metabolic misfortune at all**

It would be erroneous to believe that the agave syrup could be a metabolic misfortune to consumers, based upon the fact that our agave syrup contains up to 5% of inulin and other natural prebiotics. A study from the University of Guadalajara, the pioneers in agave studies,

show that the inulin and other prebiotics found in agave syrup contributes to an improved metabolism by stimulating the intestinal flora.

### **Low GI = Diabetic friendly**

Agave syrup has very low Glycemic Index, and ours in particular, has a GI of 17. Based on the research conducted by the Dr. Jenkins Laboratories (among others), agave syrup with a GI of 17, consumed in adequate portions, is a diabetic friendly product.

### **Is fructose bad?**

Too much of anything is a bad thing. If an individual were to consume over 25% of their daily caloric intake as fructose, the results would be disastrous on the overall health of that individual. The inference that fructose is bad for you is highly suspect. Fructose is found in fruit and vegetables as a naturally occurring sugar. The danger lies in the amount of fructose consumed. Moderation is again the key.

Furthermore, Laura Gabriel Sanchez Lozada / My Phuong Lee / Mark Segal / Richard Johnson from the division of Nephrology, Hypertension and Transplantation of the University of Florida wrote in an article published by The American Journal of Clinical Nutrition named and entitled, "How safe is fructose for persons with or without diabetes" concluded that ANY PERSON WITH OR WITHOUT DIABETES CONDITION CAN SAFELY EAT UP TO 90 GRAMS OF FRUCTOSE AND EVEN DERIVE THE BENEFIT OF LOWERING THE CONCENTRATIONS OF GLYCATED HEMOGLOBIN (HbA1c). As a reference, 90gr is almost 1/3 of a small bottle of 12 ounce bottle of agave nectar.

The real issue lies with the amount of sugar consumed, rather than the impact on one's metabolism. On average, a typical individual consumes more sugar than the body can burn and as a result the excess sugar is stored in the individual's body as fat.

### **About the caloric content of blue agave syrup**

It is true that the caloric value between sugar table and agave syrup is very similar. But the fact that blue agave syrup is sweeter (endulcorant effect) means that you need 30-40% less agave syrup to achieve the same sweetness as sugar table or other sweeteners, thus reducing your caloric intake.

### **Fructose elevates your uric acid levels?**

It sounds dangerous but it is not quite true, let's see the whole picture; it's been generally said that uric acid condition is caused by imbibing excessive alcohol and/or eating excessive amounts of food, but the truth is that it is purely hereditary. Obviously once some one finds him/her self in such condition one must be very careful with the foods they eat. The prohibited foods for uric acid patients are not related to fructose. Actually the foods you should avoid are fish, seafood, liver, kidneys, hearts, meat in general (beef, pork, lamb, etc.) also fats like butterfat, cream and pork butter and beverages that contain alcohol and caffeine. It is RECOMMENDED to eat fruit such as bananas, which by the way have the highest fructose content for a fruit.

<http://www.hacerdieta.com/category/dieta-contra-el-acido-urico/>

### **Does Fructose make me fat?**

Any type of sugar you eat including glucose, sucrose, and fructose that isn't burned by your body will be stored as fat; that's what the body does to prepare for lean times. However today, food is readily available and humans for the most part have escaped the feast or famine that has historically plagued human society. The question is: Are you eating too little, too much, or just the right amounts of sugars? We would suggest you to estimate your requirements with the help of a specialist to efficiently control your intake of sugar. There are no secrets or magic, just a fundamental understanding of how your body works.

### **Does Agave Syrup cause Insulin Resistance?**

We have not documented or found any institute or university that has performed or is performing research linking the ingestion of agave syrup to insulin resistance. If anyone knows of research being conducted on this topic, please share it with us. Keep in mind that agave syrup is not High Fructose Corn Syrup, which is chemically different than the natural fructose found in agave syrup.

A counterpoint to the assertion that the consumption of agave syrup causes insulin resistance, there are nutritionists who recommend the agave syrup consumption for PREVENTING the insulin resistance based on its inulin content. It has been postulated that this prebiotic helps keeping the sugar and glucose levels in balance and that will keep you safe from insulin resistance condition. ([www.enbuenasmanos.com/articulos/muestra.asp?art=324](http://www.enbuenasmanos.com/articulos/muestra.asp?art=324)).

Also Dr. Rafael Valle Rivera, in his article "Tratamiento de la Diabetes por medio de la alimentación" explains that the inulin contained in the agave syrup is a soluble fiber which decelerates the digestive process in a way that avoids the rush of glucose into the blood stream and helps avoid excessive (not eliminating) levels of insulin, thus improving organ sensitivity to this hormone (insulin).

### **Are the agave syrup and HFCS the same?**

There are 3 main types of HFCS that are used in food industry:

- Crystal Fructose / 100% fructose CP or Chemically Pure
- High fructose corn 55 / 55% fructose
- High fructose corn 42 / 42% fructose

The obvious but significant differences between agave syrup and HFCS:

- 1) Raw material
- 2) Process

Typical Blue Agave Syrup content:

Fructose 80%

Glucose 10%

Inulin and other prebiotics 5%

Having this 5% of inulin and other prebiotics content makes a huge difference of agave as a healthy sweetener since it will help you to absorb the nutrients you get in other foods, as well as helping to eliminate potentially harmful elements in your intestine.

### **Does agave syrup have saponins?**

Saponins are present in several plants like lettuce and onions, and it is correct that the agave plant has saponins too. However, the saponins are present only in the leaves of the agave and when farmers do the picking and the "jima" the leaves and roots are cut off and left in the fields so this naturally occurring substance is not transported to the production facility. Therefore there are no saponins in the agave syrup you enjoy with your favorite foods.

### **Conclusion**

Agave Syrup is a 100% natural, organic, safe, healthy, sustainable and even diabetic friendly product. It has a great taste and sweetens 30-40% more than sugar so you can use less to sweeten your foods.

Please contact me with additional questions,

Hendrik Rabbie

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