

Scientists produce agave-based hydrating drink for athletes

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Agave Beverage

Researchers at Jiquiquilpan's Institute of Technology (ITJ) in Mexico have developed a hydrating beverage for athletes that is based on agave's

fructans, which not only supplies adequate water levels, but offers other benefits such as dietetic fiber.

Dr. Nahum Castellanos Perez explained that hydrating beverages should not be confused with energizing ones, as the latter provide high levels of energy, but don't compensate for water loss that, with intense physical activity, can be up to one liter per hour.

Dr. Castellanos said that hydrating beverages on the market are made of water, sugars (glucose, fructose, saccharose, maltodextrin) and electrolytes (sodium, potassium, magnesium, calcium), which are necessary for adequate hydration. However, there isn't a product for high performance athletes that contains a proper balance that favors quick hydration while simultaneously regulating stomach pH (acidity levels), delivering a boost of energy, and supplies prebiotics and probiotics necessary for health.

Thus, they developed the technology to extract agave's fructans (agave tequilana weber blue variety) that favor quick hydration, offer an energy supply to recover physical strength, regulate acidity generated by extreme exercise that usually causes the formation of lactic acid and muscular cramps, and that do not increase glycemic indexes.



Hydration beverage

Fructans are considered prebiotics, thus behaving as dietetic fiber that is fermented by the bifidobacteria in the colon, which contributes to health. Additionally, they don't add calories like other sweeteners and favor the acceleration in the transit of stool in the intestine.

Including soluble fiber in hydrating beverages improves digestive function and decreases levels of triglycerides and cholesterol in the blood, regulating blood pressure, Castellanos notes.

Additionally, fructans were submitted to a bio-technological process for the generation of probiotics, living microorganisms that stimulate the

immune system.

This beverage combining pre- and probiotics, called "Pro-water," is available in citrus flavors (lime and orange), complemented with juice and nectar from clarified agave, with mineral salts that, by law, every hydrating beverage must contain.

The researcher stated that Pro-water offers competitive advantages in the hydrating beverages market, because it stimulates the immune system of athletes, facilitates the absorption of minerals contained in every hydrating beverage, while improving the absorption of calcium and eliminating pathogenic microorganisms in the colon.

Currently, a collaboration exists between Jiquilpan's Institute of Technology and the company Productos Selectos de Agave (Selected Agave Products) in that city (Jiquilpan) to impulse a related innovation system.

Furthermore, with base on the agave's fructans, the ITJ developed other alternative foods such as a gourmet chocolate, replacing fat with the creamy fraction of the fructans and sweetening it with agave nectar instead of the sugar used in conventional chocolates. Also, a bread that provides prebiotics and probiotics was created. The creamy consistency of fructans was used to replace fat in bread, a filling for a croissant was also developed.

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