

## PROCESS OF OBTAINING YOUNG AGAVE FRUCTANS AND USE AS A FUNCTIONAL INGREDIENT

<i>Offering Organization:</i>	Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.
<i>Type of Organization:</i>	Public Research Center
<i>Development Stage:</i>	Laboratory
<i>Desired Relationship:</i>	<ul style="list-style-type: none"><li>– Technological research and development financing (technological partner)</li><li>– Specialized application tests</li><li>– Creation of a new company (Joint Venture) for the commercialization of the products outlined herein</li><li>– Licensing of patents</li></ul>
<i>Sector:</i>	Food
<i>Area of knowledge:</i>	Food Technology
<i>Key words:</i>	Fructans of young agave; Nutraceuticals

### DETAILED DESCRIPTION:

#### *Problem to be solved:*

The processing and use of agave fructans as a functional ingredient with nutraceutical properties to reduce serum triglycerides in overweight or obese patients, or in normal-weight patients that suffer from dyslipidemia.

#### *Solution:*

A product that contains a mixture of agave fructans with different degrees of polymerization, which can be used as a nutraceutical ingredient in the formulation of functional foods or for use as a food supplement. This product reduces triglycerides that are present in metabolic disorders and overweight or obese persons.

#### *New and Innovative Aspects:*

The agave used determines the differentiation of its carbohydrates. This is due to the fact that the polymer chains containing agave fructans increase in size over time.

### TECHNICAL CHARACTERISTICS:

This product is formed from a mixture of agave fructans with different degrees of polymerization. These are specifically found in agave plants with a maturity of 3 years. It is composed of long/short chain fructans in ratios ranging from 30/70 to 50/50. This product is derived from young agave plants. The agave is washed and the fiber is torn off the plant and ground, and then combined with hot water to obtain an aqueous extract containing agave soluble solids. The extract is then filtered using coagulation, sedimentation and filtration techniques to remove insoluble solids present. The extract can be concentrated or dehydrated to obtain a powder.

#### *Main advantages derived from its utilization:*

- This product is a mixture of branched agave fructans, it contains a higher proportion of short-chain fructans with degrees of polymerizations of 3 to 10 fructose units
- This product decreases the concentration of serum triglycerides, which can be extremely beneficial in overweight or obese patients, or in normal-weight patients that suffer from dyslipidemia.

*Applications:*

- Food supplements, pharmaceutical components

**INTELLECTUAL PROPERTY**

- Patent application submitted in 2013
- Application number : MX/a/2013/004901

**ABOUT THE OFFERING ORGANIZATION**

*Presentation:*

El Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C. (CIATEJ) is a public research center that belongs to the national technology development and innovation network, the National Council for Science and Technology (CONACyT). CIATEJ is focused on the agricultural, food, health, and environmental sectors with an emphasis on the application of innovative biotechnology.

*Contact Information:*

Evaristo Urzúa Esteva - [eurzua@ciatej.net.mx](mailto:eurzua@ciatej.net.mx)