AGAVE FRUCTANS, EXTRACTION PROCESS AND ITS USES	
Offering Organization:	Centro de Investigación y Asistencia en Tecnología y Diseño del Estado de Jalisco, A.C.
Type of Organization:	Public Research Center
Development Stage:	Laboratory
Desired Relationship:	– Technological research and development financing (technological partner) – Specialized application tests – Creation of a new company (Joint Venture) for the commercialization of the products outlined herein – Licensing of patents
Sector:	Food
Area of knowledge:	Food Technology
Key words:	Nutraceuticals, agave fructans, fractionated fructans

DETAILED DESCRIPTION:

Problem to be solved :

This research presents fractionated agave fructans of different degrees of polymerization, the process of production, and the use in reducing glucose, triglycerides, weight and/or body fat related to metabolic disorders, overweight conditions and obesity.

Solution:

The complete process for the extraction of fructans present in agave plants and its use as a food supplement with nutraceutical properties or as an ingredient in the production of foodstuffs and food items.

New and Innovative Aspects:

A purified agave extract is created by separating the agave fructans according to the degree of polymerization. Different results were identified in the use of fructans with a degree of polymerization of 3-10 compared to the results obtained from the use of fructans with a degree of polymerization > 10.

TECHNICAL CHARACTERISTICS:

Products obtained by fractionating an aqueous extract of agave, consisting of branched agave fructans separated by molecular chain size or degree of polymerization can be broken down into two types:

a) Short-chain fructans (fructo-oligosaccharide) with a degree of polymerization between 3 and 10 monomer units
b) Long-chain fructans with a degree of polymerization greater than 10

Main advantages derived from its utilization:

- This process allows for the separation of the fructans by molecular chain size or degree of polymerization into: short-chain fructans (DP 3-10) and long-chain fructans (DP> 10)
- The application of the short-chain versus long-chain fructans show different results

– Three different products are obtained from one single process
Applications: – Nutritional supplements, pharmaceutical components
INTELLECTUAL PROPERTY
– Patent application filed in 2013

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.
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