PROCESS TO OBTAIN	A FRUCTOSE SYRUP AND PRODUCTS DERIVED FROM YUCCA FILIFERA	
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:	Foods	
Area of knowledge:	Food Technology	
Key words:	<i>Yucca filífera</i> , fructose syrup, sweeteners, sugar substitute . sugar extraction, ion exchange	
DETAILED DESCRIPTION:		
Problem to be solved: Process to obtain a fructose syrup and other products derived from the extraction of syrups high in crystalline fructose and gluconic acid from the flesh of the Chinese palm fruit scientifically named Yucca filifera.		
consisting of the - Extraction of	of the product (purification) ation	
 Provide a process to obtain a fructose syrup with greater sweetening power. Supply a product with lower cariogenic capacity. Provide a syrup which, by its nature, can be used as an intermediary product to obtain fructose and gluconic acid. 		
TECHNICAL CHARACTERI	STICS:	
derived from Yud the raw material the product to a solution; subject remove bagasse, vessel in order to	lates to a process of obtaining a fructose syrup and other products <i>cca filifera</i> . The process is comprised of the following steps: pre-select taking into consideration maturity and low moisture levels; subject sugar extraction step (pulping) in a heated and agitated aqueous the resulting product to a filtration step under ambient conditions to with the ensuing liquid phase from the filtration sent to a settling o submit the product to a clarification by precipitation stage in an y adding a weak acid until a pH of 2 is reached; then directly	

incorporate a lime slurry until reaching a neutral pH ; heat the neutralized suspension to a temperature of 60°C to 80°C and let it stand for about 1 hour until reaching complete precipitation of the solids, where two phases are obtained and the supernatant is removed and sent to an activated carbon column for the clarification of the syrup maintained at temperatures of 45°C to 75°C; the resulting clarified syrup is a mixture of fructose and glucose and mineral salts which is sent through a deionization stage to obtain a diluted fructose syrup; lastly concentrate the syrup using evaporation at warming temperatures in a vacuum until obtaining a fructose syrup.

Main advantages derived from its utilization:

 Procedure that takes advantage of the carbohydrate content (70%) in the form of fructose to obtain a syrup high in fructose with characteristics superior to those obtained from corn starch, with the advantage of obtaining other products derived through the use of an enzymatic treatment such as the more valuable products crystalline fructose and gluconic acid.

Applications:

– Sweeteners, Sugar substitutes

INTELLECTUAL PROPERTY	
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- Patent protected process in Mexico
- Applied in 1994 and granted in 1997

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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