**FUNCTIONAL AND NUTRITIONAL SNACKS OBTAINED BY FRYING, EXTRUSION AND BAKING**

**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:** Functional snacks, nutritious snacks, prebiotic biological activity

**DETAILED DESCRIPTION:**

**Problem to be solved:**
In recent years, the dynamics of everyday life have led to many eating disorders in families, encouraging the consumption of food high in calories, no matter whether it is due to carbohydrate- or high-fat content lacking in important nutrients, like proteins. This, along with the lack of physical activity, among other factors, contributes to gain of body mass in large parts of the Mexican and worldwide populations. The above has led to increased incidences of chronic diseases resulting from being overweight or obese such as diabetes, hypertension, hyperlipidemia, and others.

**Solution:**
The invention presented in this patent aims to obtain snacks made with corn and amaranth flour that result in prebiotic biological activity in the consumer, with higher protein content and lower fat content in relation to conventional snacks that are on the market.

**New and Innovative Aspects:**
- The present invention refers to functional and nutritional snacks made with corn and amaranth flour that result in prebiotic biological activity in the consumer.

**TECHNICAL CHARACTERISTICS:**
The present invention refers to functional and nutritional snacks made with corn and amaranth flour, flavor additives and food-grade color additives to finish processing the products. Cooking processes employed to fully cook the developed formulations were frying, extrusion and baking. The operating conditions under which product development was carried out ensure that the nutraceutical properties of the ingredients used are not lost in the obtainment of the prototype products. The resulting products were analyzed in the laboratory and their proximate profile determined the protein, carbohydrate, fat and fiber content.

**Main advantages derived from its utilization:**
- As nutraceutical, functional and nutritional ingredients
### Applications:
- Food Industry

### INTELLECTUAL PROPERTY
- Patent submitted in 2014
- MX/a/2014/001227

### 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: | Mtro. Evaristo Urzúa Esteva - eurzua@ciatej.net.mx |