Hypoglycemic Gummy from Prickly Pear, Nopal, Gelatin, and Aloe as a Supplement Alternative for Type II Diabetes Mellitus

Sanchez Rivera, Luis
Mendoza Lopez , Aylin (School: Annex School to the Normal High School of Teotihuacan)
Gómez Flores, Jezabed (School: Prepa Anexa)

The overall prevalence of Diabetes Mellitus is rapidly increasing as a result of an ageing population, urbanization and lifestyle changes. Generally, drugs with different chemical structures and mechanisms of action that are intended to normalize blood glucose levels are generally used for the therapeutic management of Diabetes Mellitus type II control. Medicinal plants or their extracts can optimize glucose metabolism and the integral condition of diabetics, not only for their hypoglycemic effects but also by improving lipid profile, antioxidant status and capillary function. Since ancient times hundreds of plants, extracts, infusions and foods have been used in general for their "healing" properties, which is why cacta enter this regimen. The Teotihuacan Valley, characterized by being a large producer of the most studied nopal (Opuntia Fiscus Indica) from which the hypoglycemic effect has been found, is how the objective of this research arises, which is to develop a gummite that serves as a supplement with hypoglycemic properties from nopal, tuna (Opuntia Ficus Indica) as well as Aloe Vera, considering the hypothesis : "It is possible to make edible gummies with the presence of hypoglycemic substances as an alternative supplement, which help us to regularize blood glucose levels based on the physicochemical characteristics of nopal, tuna, grenetine and jubilant". Therefore, green tuna and nopal (Opuntia fiscus-indica) were used, corresponding to the summer harvest with a degree of firm maturity, collected manually and from the surroundings of Teotihuacán.

Awards Won: