

Evaluation of Two Functional Food Products: Tortillas and Yogurt Based on *Spirulina platensis* and *Haematococcus pluvialis*

Authors : Raul Alexis Sanchez Cornejo, Elena Ivonne Mancera Andrade, Gibran Sidney Aleman Nava, Angel Josue Arteaga Garces, Roberto Parra Saldivar

Abstract : An unhealthy diet is one of the main factors for a wide range of chronic diseases such as diabetes, obesity, cancer, cardiovascular diseases, among others. Nowadays, there is a current need to provide innovative healthy products to people in order to decrease the number of people with unhealthy diet. This study focuses on the production of two food products based on two microalgae strains: Tortillas with powder of *Haematococcus pluvialis* and *Spirulina platensis* biomass and yogurt with microencapsulated biomass of the same strains. *S. platensis* has been used widely as food supplements in a form of powder and pills due to its high content in proteins and fatty acids. *Haematococcus pluvialis* has been recognized for its ability to produce high-added value products under stressful conditions such as antioxidants (astaxanthin). Despite the benefits that those microalgae have, few efforts have been done to use them in food products. The main objective of this work is to evaluate the nutritional properties such as protein content, lipid fraction, carbohydrates, antioxidants, and vitamins, that these microalgae strains provide to the food product. Additionally, physicochemical, and sensory evaluation were assessed to evaluate the quality of the product. The results obtained will dictate the feasibility of the product to be commercialized. These novel products will have the ability to change the nutritional intake and strengthen the health of the consumers.

Keywords : functional food, *Haematococcus pluvialis*, microalgae, *Spirulina platensis*, tortilla, yogurt

Conference Title : ICFSRTI 2016 : International Conference on Food Science Research, Technology and Innovation

Conference Location : Sydney, Australia

Conference Dates : December 15-16, 2016