



Book of Abstracts of the 1st Congress on Food Structure Design

Fundação Dr. António Cupertino de Miranda, Porto, Portugal

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Formulation and consumer acceptance of cereal bars with functional properties by the incorporation of peptides and β -glucans from Spent Brewer's Yeast

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Abstract

The market for functional ingredients and foods has a high growth due to increased awareness and promotion of healthy eating and lifestyle of consumers. Food can be used as vehicle to intake bioactive compounds that provide health benefits and increase people well-being. Thus, cereal bars are a popular and convenient food, which is an ideal carrier to incorporate functional ingredients that promote health and prevent diseases. The design and development of functional foods should not be made based solely on nutritional function without taking into account product properties, such as color, texture, flavor and taste. The sensory properties are the most important attributes for the consumer acceptance, as well as other quality issues such as stability and texture. This work was focused on the formulation and sensory analysis of cereal bars obtained by incorporation of peptides and β -glucans extract obtained via autolysis and hydrolysis of spent brewer's and presenting biological activities such as, antihypertensive and prebiotic. However, this ingredient results in particular taste and flavor that may constrain the matrix choice and consumer acceptance. The cereal bar was formulated based on oat, rice and corn and added 2% extract. Consumer acceptance tests were performed to test general acceptability in particular for the appearance, aroma, flavor and texture by hedonic scale of nine points (9 = liked a lot and 1 = dislike very much) and intent to purchase of 5 point scale (5= definitely would buy and 1= definitely would not buy).

The final cereals bars were assessed by 52 consumers and showed positive response since "like" for all attributes were obtained. Regarding the intention to purchase, the sample had an

average between "maybe bought" and "probably would buy". So these results suggest that cereal bar is an adequate matrix to produce a functional food with antihypertensive and prebiotic activity based on spent brewer's yeast bioactive ingredient.

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