

Physical and sensory properties of food and consumer science

The group studies the effects of different ingredients on the physical and sensorial properties of foods and aims to correlate them to the final quality and consumer's perception and acceptance.



The group is open to discuss any kind of collaboration with industry and academia related to these topics.

FIELD OF EXPERTISE

The physical and sensorial characteristics of foods related to the presence of different ingredients, processes, preservation and other variables is of crucial importance to understand consumer's perception and acceptance of food products.

Ingredients can be studied to analyze their technological functionality, their performance under processing and interactions with the other food components on the final physical and sensorial properties. The group develops new food formulations by looking at each ingredient's contribution to the final properties. Based on this knowledge formulations can be adapted to improve the final products characteristics matching both objective and sensory high quality standards

They also study the sensory properties of foods by new consumer techniques and profiling to get inside into human perception analyzing the effects of context and other non-sensorial properties like labelling, semiotics, nutritional facts, or ingredient contents.

MAIN APPLICATIONS AND SERVICES

- Studies of rheological properties of foods, food texture and the correlation of food structure with quality. Mechanical behavior of foods during cutting, packaging and manipulation. Changes in foods and ingredients during processing and storage and impact on sensorial quality.
- Development of target reformulations considering relationship amongst ingredients and their technological function.
- Studies of oral processing of liquid and solid food by dynamic techniques like Temporal Dominance of Sensations
- Sensorial characterization of food matrices and relationship with composition, and structure
- Relationship between sensorial and non-sensorial parameters and consumer's perception and acceptance.
- Development of quantitative and qualitative methods of sensorial analysis and consumer sciences using trained and non-trained panels.
- Psychology, economy, psychology, and sociology approaches to food related issues.



FURTHER INFORMATION

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