

Industrialized Textured Fruit Juices Design for Promotion of Hydration in Elderly

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Introduction: Senior population presents specific nutritional and physiological requirements linked to health status that determine the need to develop hydration promoting food products. Due to masticatory difficulties associated with ageing, is necessary to modify texture properties of food products to assure a safe consumption.

Daily personalized nutrition, through the design of texture modified ready-to-eat food products with high nutritional and sensory quality, plays an important role in disease prevention and promotion of well-being in the elderly.

Objective: Development of ready-to-eat textured palatable and pasteurized apple juices to promote hydration in the adult and senior population with dysphagia and study the feasibility of their industrialization.

Methodology: Application of formulation techniques to modify and control food texture based in viscoelasticity modulating properties of hydrocolloids in commercial fruit juices. Design of processing parameters and industrial steps to obtain stabilized prototypes along shelf-life. Texture and sensory properties characterized by means of textural (viscosity, consistency and flow) and physico-chemical (colour and appearance) analysis.

Results: According to International texture scales for thickened drinks, six different formulations of pasteurized modified-textured apple juices were developed at pilot plant scale analyzing sensory profile and texture stability.

Conclusions: There is a lack of commercial ready-to-eat texture modified products to be included in the daily menu of older people or consumers affected by chronic diseases and the ageing process. Availability of texture modified food solutions with improved sensory (flavor, texture) characteristics might have a positive effect in psychological satisfaction and enhance quality of life.

Biography:

Raquel Llorente (BSc in Pharmacy and in Food Science and Food Technology, female). Expertise in new food products development and food processing technologies. She has been involved in R&D&i activities and technology transfer to the food industry for 16 years. She has participated in 35 RTD projects for different public-private organizations in the Food Industry, and is author of 2 food processing patents, both of them industrially exploited.