**Yogurt products functionalisation with peach-extracted pectin and polyphenols**

Athina Theocharidoua; Ioannis Velopoulosa; Psomas Evdoxiosb; Koliouskas Antoniosc; Christos Ritzoulisa\*

*a. Department of Food Science and Technology, International Hellenic University, Alexander Campus, 57400 Thessaloniki, Greece. .*

*b. Hellenic Agricultural Organization-Demeter, Agricultural School Avenue, 57110 Thermi, Greece.*

*c. Koukakis Farm S.A., 61100 Kato Apostoli, Kilkis, Greece*

A method is introduced for the microwave extraction of pectin and polyphenols from choice peach flesh, along with the application of such extracts in functionalising strained yogurt. A Box-Behnken experimental design was used in order to optimise the extraction variables. The extraction parameters are correlated to extraction efficacy, extract composition, and to the mechanical and color properties of the resulting end product (functionalised yogurt).

A discussion is made on the optimization of both the extraction process and the properties of the final product, aiming to provide proof-of-concept on the valorisation of second-class/choice products and by-products of the food industry as novel sources of added-value green ingredients for use in functional food products.

**Acknowledgment:** This work was funded under the project «Utilization of stone fruit from the region of Imathia for the production of an innovative yogurt type product with enhanced characteristics» - NOVOYOG (Project code: ΚΜΡ6-0277776), implemented under the framework of the Action «Investment Plans of Innovation» of the Operational Program «Central Macedonia 2014–2020», that is co-funded by the European Regional Development Fund and Greece.