

9<sup>th</sup> World Congress on  
**POLYPHENOLS APPLICATIONS**

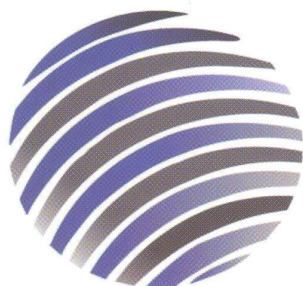
June 3-5, 2015 - St Julian's - Malta

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9<sup>th</sup> ISANH Congress on

# Polyphenols Applications

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INTERNATIONAL SOCIETY  
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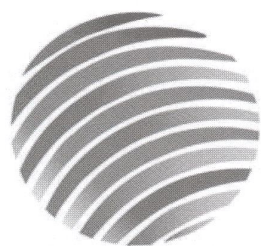
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## INFLUENCE OF THE ADDITION OF HAZELNUT SKINS ON THE POLYPHENOL CONTENT OF YOGURT AND FRESH EGG PASTA

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The world's production of hazelnuts in 2013 was 858.697\*10<sup>9</sup> Kg. Two by-products are obtained during the hazelnut processing – shell and hazelnut skin. Hazelnut skin represents approximately 2.5 % of the total kernel weight and is a rich source of phenolic compounds with antioxidant properties. Therefore, the aim of our works was to evaluate the possibility of using hazelnut skin as a source of antioxidants in yogurt<sup>1</sup> and fresh egg pasta<sup>2</sup>. The skins of three different varieties ("Tonda Gentile Trilobata", "San Giovanni" from Italy and "Georgia" from Georgia) were used in the yogurt production at two different percentage of addition (3% and 6%). For pasta production, the same skin varieties but at three different percentage (5, 10 and 15%) were used. The raw material and the final products were subjected to the total phenolic content assay using the Folin-Ciocalteu method and to the free radical scavenging capacity assay by using the DPPH radical. The studies demonstrated that hazelnut skin can be utilized as a source of antioxidants to fortify yogurt and pasta, but the characteristics of the final products were strictly correlated with the hazelnut variety used and the percentage of addition.

1. Bertolino M., Belviso S., Dal Bello B., Ghirardello D., Giordano M., Rolle L., Gerbi V., Zeppa G. (2015). Influence of the addition of different hazelnut skins on the physicochemical, antioxidant, polyphenol and sensory properties of yogurt. *LWT – Food Science and Technology*

2. Zeppa G., Belviso S., Bertolino M., Cavallero M.C., Dal Bello B., Ghirardello D., Giordano M., Giorgis, M., Grosso A., Rolle L., Gerbi V. (2014). The effect of hazelnut roasted skin from different cultivars on the quality attributes, polyphenol content and texture of fresh egg pasta. *Journal of the Science of Food and Agriculture*, 95, 1678-1688.