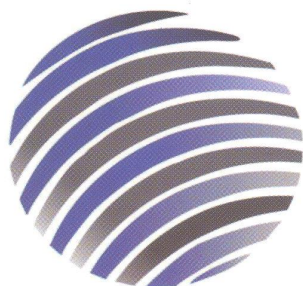


9th World Congress on
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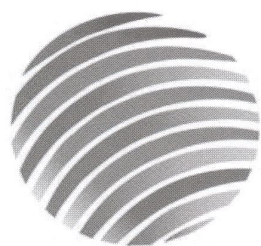


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IN NUTRITION & HEALTH

ISBN: 978-2-35609-073-7

YOGURT AND CHEESE ENRICHMENT WITH BY-PRODUCTS OF WINEMAKING: PRELIMINARY RESULTS OF PHYSICOCHEMICAL, NUTRITIONAL AND SENSORY EFFECTS

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Grape pomace (GP), composed by a mix of grape seeds and skins, corresponds to approximately 62% of the waste generated during winemaking. Although part of GP is distilled for ethanol extraction, the majority of this material is wasted with several environmental and economic issues¹. Since GP is a source of polyphenols, it has been proposed as functional ingredient in order to create novel foods with enhanced nutritional value minimizing the volume of agricultural wastes. The objective of this research was to evaluate the feasibility of using GPs obtained from different varieties (Chardonnay, Moscato, Barbera and Pinot Noir) before and after distillation process in yogurt, semi-hard and hard cheeses production. GPs powder were added at different concentration (6% for yogurt; 0.8 and 1.6% for cheeses) and the effect on physico-chemical characteristics, total phenolic content, radical scavenging activity and sensory acceptability were evaluated during yogurt storage (21 days) and cheese ripening (30 days for semi-hard and 6 months for hard cheese). Preliminary results highlighted that GPs can be used as a functional ingredient to fortify yogurt and cheeses in order to obtain new and more competitive functional foods and this application could be an environmental friendly way to manage winemaking wastes.

1. Ruggieri, L., Cadena, E., Martínez-Blanco, J., Gasol, C. M., Rieradevall, J., Gabarrell, X., Gea, T., Sort, X., Sánchez, A. (2009). Recovery of organic wastes in the Spanish wine industry. Technical, economic and environmental analyses of the composting process. *Journal of Cleaner Production*, 17(9), 830–838