

A preliminary study on yogurt enrichment with by-products of winemaking

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Pomace, the residual seeds and skins from winemaking, contains high levels of phenolic compounds and dietary fiber, so it could be a functional ingredient with nutritional value and health benefits. The objective of this research was to evaluate the feasibility of using different grape pomaces (Chardonnay, Moscato and Pinot Noir) in yogurt formulation. Grape pomace was dried and milled to reduce particle size to 250 µm. Pomace powder was then sterilized before its addition to yogurt at 3% of the total weight. Yogurt was analysed at 0, 1, 7, 14 and 21 days for gross composition, pH, percentage lactic acid, syneresis and sensory properties. The high content of sugar in pomace stimulated the activity of the starter and this led to a significant decrease in pH and an increase in acidity ($p < 0.01$). The ability of grape pomace to create a stable and firm structure in yogurt was demonstrated by the decrease in values of syneresis for all grape varieties studied ($p < 0.01$). Furthermore, sensory evaluation suggested that pomace from Chardonnay was appreciated more than yogurt made using Pinot Noir pomace. In conclusion, the use of grape pomace in yogurt production can reduce industrial wine-waste. Additionally, consumption of this functional yogurt will provide more fiber and antioxidants to consumers.