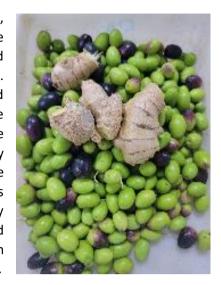


PRACTICE ABSTRACT nº 44

Co-malaxation of olives with ginger powder

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To produce virgin olive oils, olives (good quality picked fruits, stored in small, perforated boxes in a cool room for a maximum of 48 hours before processing) are washed and milled to obtain the olive paste. Next, the olive paste is kneaded (malaxation phase) and centrifuged to separate the olive oil from water and solids. The temperature is a key factor during the milling process; it affects both quality and yield. Temperatures below 30°C can be considered a good compromise between the oil yield and minor compounds enrichment (in terms of phenolic and volatile molecules). Also, centrifugation systems could impact phenolic content, usually higher in oils produced with a two-phase decanter (in comparison with a three-phase decanter in which water is added in significant amount to olive paste producing a loss of phenolic polar compounds in water). Nowadays, oil clarification is generally carried out by vertical centrifugation or/and natural settling (to remove suspended particles and impurities). Then, the virgin olive oil remains cloudy due to emulsion dispersed as microdroplets. Filtration is performed to separate the micro-emulsion.



The objective is the production of a flavoured olive oil by using ginger powder in a sustainable view.

1%: 1 kg olives + 10 g ginger powder *Other concentration percentages have been studied: 1.5% 1 kg olives + 15 g ginger powder 3%: 1 kg olives + 30 g ginger powder Small scale mill

