



Book of Abstracts of the 1st Congress on Food Structure Design

Fundação Dr. António Cupertino de Miranda, Porto, Portugal

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Study of antioxidant properties and consumer acceptance of sour cherry based jams

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Abstract

In recent years a major market trend has been the design of more natural foodstuffs with chemical constituents being replaced by natural compounds and ingredients. Sour cherry is a phenolic rich fruit that has already been incorporated into the food chain, namely through a Portuguese traditional liquor (Ginjinha), however other food matrices may be the carrier for this antioxidant fruit, but formulation and processing conditions may affect functionality and acceptability. With that in mind the goal of this work was to expand the incorporation of sour cherry into the food chain via development of novel sour cherry based recipes or foodstuffs, with the most promising one being sour cherry jams with reduced sugar content. From this work two formulations resulted, one with whole cherries and other with cherry pulp? These products were characterized in terms of antioxidant activity, phenolic compounds and anthocyanin profile and consumer acceptance.

The results obtained through chemical and sensorial analysis of the two formulations showed that from a chemical standpoint the jams possessed significant antioxidant capacity with a high content of phenolic compounds, namely caffeic acid. Regretfully when considering the anthocyanin content due to the high temperature used during processing they were highly reduced. When considering the sensorial analysis of the two jams through a focus group, results showed that over 77% of the panellists liking both products, with their texture and sweet flavour being remarked as the strong points of both products. Furthermore 72% of the panellists stated their intention to buy the products.

In conclusion the results obtained show that the developed products were market ready and that, despite the thermal treatment involved in their processing, both jams validated for consumption still maintained a significant level of biologically active compounds.

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