

## **Quality of fish balls from organic meagre side streams formulated with fish protein hydrolysate**

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Demand in the global market is shifting toward higher value-added processed seafood with convenience and ease of preparation, and consumers are opting for products with high nutritional value that also satisfy sensory/hedonic attributes. Moreover, the sustainability of food systems has attracted the attention of the scientific community, which has focused its efforts on the reduction, management and use of food waste and by-products. Fish processing by-products are a source of different compounds with high commercial value, including collagen, gelatin, proteins, peptides, oil, lipids, chitin, vitamins, minerals, enzymes, pigments, and flavorings, which can be used as raw material as well as functional ingredients for the production of value-added products. The aim of this study was created a high valued add product based on meagre side streams with addition of Fish Protein Hydrolysate (FPH) from fish by-product. Fish balls were prepared from meagre (*Argyrosomus regius*) flesh obtained by mechanical separation of the side streams obtained after the filleting operation. FPH was added to fish balls at the concentrations of 0.5%, 1% and 1.5% in order to develop a product with high nutritional value and desired sensory properties. For this purpose, physicochemical and sensory tests were performed to investigate the quality of the final product. The results showed that the addition of FPH did not significantly affect the physicochemical parameters such as pH, water and content, color, tbars and texture. On the other side, flavor of the fish balls was significantly affected, with sweetness increasing with increasing FHP concentration. However, samples added with 1.5% FPH resulted as the best group for sensory analysis results. Overall, the present study showed that the addition of FPH from fish by-products can be a strategy for the production of high nutritional value products from meagre side streams without changing the quality of the final product.