عنوان مقاله:

Comparison the functional properties of protein Hydrolysates from poultry byproducts and rainbow trout

محل انتشار:

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خلاصه مقاله:

Poultry by-products and rainbow trout (Onchorhynchus mykiss) viscera are abundant and underutilized resources that can be used as a unique protein source to make protein hydrolysates. In this study protein hydrolysate were made from these two different sources with Alcalase ۲.۴L. The functional properties of Fish viscera protein hydrolysate (FPH) compared to poultry by-products protein hydrolysate (PPH) were studied: Solubility, water holding capacity (WHC), oil absorption capacity (OAC), colour, emulsifying and foaming properties. Furthermore, the products were characterized by analyzing their amino acid composition. WHC, emulsifying activity, emulsifying stability and foaming properties and color of the FPH was significantly (P < ۰.۰۵) higher than PPH, while OAC was not significantly (P > ۰.۰۵) different. Methionine and histidine in both protein hydrolysates were the limiting amino acids and FPH had more hydrophobic residue. The differences in the amino acid composition between PPH and FPH may also be responsible for their different behaviours at various pH.

کلمات کلیدی:

Protein hydrolysate, Rainbow trout viscera, Poultry by-products, Functional properties, Alcalase