عنوان مقاله:

Research Article: The effect of using hydrolyzed protein prepared from the viscera of rainbow trout in the fish diet on its shelf life at ambient temperature

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خلاصه مقاله:

The aim of this study was to investigate the effect of using hydrolyzed protein (HP) prepared from rainbow trout viscera in the fish diet on its shelf life in terms of chemical spoilage, bacterial load, and chemical composition at ambient temperature. HP was prepared from rainbow trout viscera using Alcalase (۱.۵% v/w, ۵۵°C, pH ۸.۵). Five experimental diets were prepared to contain different levels of HP (۰, ۵, ۱۰, and ۲۰ g of HP/kg) and one diet containing ۲۰۰ mg/kg of butyl hydroxytoluene (BHT). The prepared treatments were kept at ۲۵±۳°C for ۱۸ weeks. The lowest mean TBA index was observed in the feeds with ۲۰ g/kg of HP and Butylated hydroxytoluene (BHT) treatment (p ۰.۰۵). The lowest Total volatile basic nitrogen (TVB-N) index was measured in HP-containing treatments until the ۱۴th week (p ۰.۰۵). The lowest bacterial count was measured in the HP-containing treatments from the ۴th week to the end of the experiment (p ۰.۰۵). The highest total protein content belonged to the HP-containing treatments. The highest fat content was recorded in HP-containing and BHT treatments (p ۰.۰۵). According to the results, the addition of HP (۲۰ g/kg) is recommended to maintain the quality of fish feed.

کلمات کلیدی:

Chemical composition, Fish feed, Hydrolyzed protein, Total volatile basic nitrogen, Shelf life, Spoilage