

Determination of the level of fish meal replacement with poultry by product meal with an emphasis on carcass quality

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Abstract

A 60-day experiment was conducted to evaluate the effect of replacement of fish meal (FM) with poultry by-product meal (PBM) on growth performance and body composition of juvenile sobaity sea bream (*Sparidentex hasta*). PBM replaced 0, 15, 25, 35, 45 and 55% of dietary FM in the isoproteic (500 g kg⁻¹) and isocaloric (21 kJ g⁻¹ experimental diets). Sobaity sea bream with an average initial weight of 29.27 ± 0.06 g were randomly assigned to 18 tanks (6 treatments with triplicates each) at an initial stocking density of 20 fish per tank. The final body weight, weight gain and specific growth rate were higher in fish fed PBM15, 25 and 35 diets than in fish fed the control, PBM45 and 55 diets. The body and fillet proximate composition were not significantly affected by the dietary treatments. Based on the growth performance and body composition of the sobaity fed with the experimental diets, the partial replacement of FM with PBM is recommended.

Key words: Poultry by product meal; Fish meal replacement; body composition, *Sparidentex hasta*