Growth Performance and Organoleptic Quality of Hybrid Grouper (Epinephelus fuscogutattus ♀ × Epinephelus lanceolatus ♂) Fed Palm-Oil Based Diets at Grow-out Stage ABSTRACT

The performance of crude palm oil (CPO)-based diets in the grow-out stage of hybrid grouper (Epinephelus fuscoguttatus \times Epinephelus lanceolatus) was examined in a net-seacage culture system. Isoproteic (50% crude protein) and isolipidic (16% crude lipid) experimental diets were formulated to replace fish oil (FO) at 25% increment level; 25CPO, 50CPO, 75CPO, and 100CPO. The FO-based diet was formulated to serve as a control treatment (100FO). Triplicate groups of hybrid grouper containing 30 fish per treatment were stocked in 15 cages and fed once daily. After 4 months of feeding trial, no significant differences (p>0.05) were observed in terms of growth performance, survival, feed utilization efficiency, body indices, fillet yield, and condition factor of fish fed different experimental diets. Except for total cholesterol, all parameters for blood analysis showed no significant differences (p>0.05) among the treatments. Findings from the organoleptic test showed that all fillets were well accepted by the consumers without any significant differences in their scores (p>0.05). In conclusion, CPO is an excellent source of lipid to replace fish oil in the grow-out diet for hybrid grouper, Epinephelus fuscoguttatus \times Epinephelus lanceolatus.