Growth and meat quality enhancement of striped catfish (pangasianodon hypophthalmus) using recombinant growth hormone

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Abstrak

The application of fish recombinant growth hormone (rGH) has been known as one of the methods to improve the growth performance of cultured fishes, one of which is the striped catfish Pangasianodon hypophthalmus, a species that is becoming commercially attractive in Indonesia. Hence, this study was aimed to evaluate the effects of rGH supplementation in commercial diet on the growth, feed utilization and flesh quality in P. hypophthalmus grow out. The rGH was mixed with chicken egg yolk and sprayed on the commercial feeds with different protein levels (32, 28 and 23%). In the control, the feeds were also sprayed with chicken egg yolk but without rGH.Â Striped catfish with body weights of 110.66 Â± 1.32 g ind-1 were fed on rGH-supplemented diets two times a week during the first and third months, and during the rest of the months they were fed on diet without rGH supplementation. The fishes were reared for 120 days in 18 hapa (2Ã—1Ã—1.5 m3) with initial density of 20 fishes per hapa. The result showed that the highest weight gain, specific growth rate (SGR), and lowest feed conversion ratio (FCR) were obtained by fishes fed on 32% protein content with rGH-supplemented diet. No significant difference was observed in the weight gain, SGR and FCR in rGH treated group with 28% protein content with rGH supplemented diet and non-rGH control group receiving 32% protein diet. Similar moisture content of meat, protein content of meat, belly fat and edible portion were observed in rGH-supplemented diet and their control. Except in the treatment 23% protein content rGH supplemented diet that has lower lipid content in fish body and meat. The highest SGR was obtained when the fishes were fed on the 32% protein feed combined with rGH. Enrichment with rGH depleted the fat content in the meat of fish fed on all levels of protein in which the lowest fat was found in the 23% protein feed