ABSTRACT

AMINAH. Application of Recombinant Giant Grouper Growth Hormone on Glass eel With Different Immersion Dose. Supervised by Dr. Alimuddin and Dr. Odang Carman.

This research was conducted to determine the optimum dose of recombinant giant grouper growth hormone (rE/GH) that generates highest growth of eel at glass eel stage via immersion. This research consisted of six treatments with three replications. The dose of rE/GH used was 0 mg/L, 3 mg/L, 6 mg/L, 9 mg/L, 12 mg/L, and control without rE/GH. The rE/GH was dissolved in 200 mL water containing NaCl 0.6% and bovine serum albumin 0.01%. A total of 50 fish were salinity shocked (NaCl 3%) for 2 minutes, and then immersed into 200 mL of rE/GH solution for 2 hours. Fish were reared for 8 weeks, and fed on blood worm ad libitum. The results showed that 3 mg/L immersion treatment allowed the highest average of body weight, biomass, and survival rate. Biomass and survival rate of 3 mg/L rE/GH-treated fish were respectively 28.0% and 15.2% higher than that of control. The average total body length of fish among treatments was similar. Thus, 3 mg/L of rE/GH was an optimum immersion dose to improve growth in weight and survival of eel juvenile.

Keywords: glass eel, recombinant growth hormone, immersion, Anguilla sp.