

## INTISARI

### **KUALITAS AIR PEMELIHARAAN NILA (*Oreochromis sp.*) PADA SISTEM BIOFLOK RESIRKULASI DENGAN APLIKASI IMUNOSTIMULAN GAMAALGIN-F**

Kualitas air merupakan faktor penting yang perlu diperhatikan dalam kegiatan budidaya ikan. Penelitian ini bertujuan untuk mengetahui kualitas air pemeliharaan ikan nila pada sistem bioflok resirkulasi dengan aplikasi imunostimulan. Penelitian ini dilakukan dengan metode eksperimental dengan Rancangan Acak Lengkap (RAL) yang terdiri dari dua perlakuan yaitu kontrol (tidak diberikan imunostimulan GamaAlgin-F) dan ikan yang diberi imunostimulan GamaAlgin-F setiap lima hari sekali, dengan empat ulangan. Pemeliharaan ikan menggunakan bak fiber dengan diameter 1.5 m, tinggi 1 m dan kedalaman air 0.85 m dengan jumlah ikan 200 ekor/bak. Pakan diberikan sebesar 3% dari biomassa dengan frekuensi pemberian sebanyak dua kali sehari. Hasil dari penelitian menunjukkan bahwa aplikasi imunostimulan GamaAlginF tidak memberikan hasil berbeda nyata terhadap volume flok, *Total Suspended Solid* (TSS), kepadatan bakteri total dalam air, kepadatan bakteri *Pseudomonas sp.* dan *Aeromonas sp.* dalam air, serta kelimpahan plankton. Kualitas air pada perlakuan kontrol yaitu kadar oksigen terlarut 1.61–4.81 mg/L, pH 6.20–7.60, suhu air 26.80–30.20°C, amonia 0.00–4.00 mg/L, nitrit 0.00–1.00 mg/L, dan nitrat 0.00–80.00 mg/L. Kualitas air pada perlakuan imunostimulan yaitu kadar oksigen terlarut 1.44–4.50 mg/L, pH 6.20–7.50, suhu air 26.80–29.40°C, amonia 0.00–1.00 mg/L, nitrit 0.00–1.00 mg/L, dan nitrat 0.00–40.00 mg/L. Aplikasi imunostimulan GamaAlgin-F tidak memberikan hasil berbeda nyata terhadap kualitas air selama penelitian.

Kata kunci : bioflok, imunostimulan, kualitas air, nila, pakan, resirkulasi

## *ABSTRACT*

### **WATER QUALITY OF TILAPIA (*Oreochromis sp.*) UNDER RECIRCULATION SYSTEM-BIOFLOC SYSTEM WITH IMMUNOSTIMULANT GAMAALGIN-F APPLICATION**

Water quality is an important factor that needs to be considered in fish farming activities. This study aimed to determine the quality of tilapia rearing water in a recirculating biofloc system with an immunostimulant application. This research was conducted using an experimental method with a Completely Randomized Design (CRD) which consisted of two treatments, namely control (feed without immunostimulant GamaAlgin F) and feed supplemented with immunostimulant GamaAlginF given every five days in four replications. Fish were reared in fiber glass tank with a diameter of 1.5 m, 1 m height and 0.85 m water depth with a total of 200 fish/tank. Feed was given at 3% of the biomass with a frequency of twice a day. The results of the study showed that the application of immunostimulants did not give significantly different results to the volume of flocs, Total Suspended Solid (TSS), bacteria density in water, *Pseudomonas sp.* density and *Aeromonas sp.* density in the water, and the abundance of plankton. The water quality in the control treatment was dissolved oxygen level 1.61–4.81 mg/L, pH 6.20–7.60, water temperature 26.80–30.20°C, ammonia 0.00–4.00 mg/L, nitrite 0.00–1.00 mg/L, and nitrate 0.00–80.00 mg/L. Water quality in immunostimulant treatment was dissolved oxygen level 1.44–4.50 mg/L, pH 6.20–7.50, water temperature 26.80–29.40°C, ammonia 0.00–1.00 mg/L, nitrite 0.00–1.00 mg/L, and nitrate 0.00–40.00 mg/L. The application of GamaAlgin-F immunostimulants did not give significantly different results on water quality during the study.

Keywords : biofloc, feed, imunostimulant, recirculation, tilapia, water quality