

## INTISARI

Penelitian ini bertujuan untuk mengetahui pertumbuhan nila merah (*Oreochromis sp.*) nilasa yang dipelihara pada sistem resirkulasi. Penelitian dilakukan pada bulan April sampai Agustus 2018 dengan perlakuan aerasi *microbubble generator* (MBG) dan *blower* serta kontrol (tanpa aerasi). Benih nila merah ukuran panjang  $\pm 9$  cm dan berat  $\pm 16$  gram, dipelihara dalam 6 petak bak beton berukuran 2 m x 2 m dengan kedalaman air 0.6 m. Setiap perlakuan diulang sebanyak 2 kali. Pakan komersial dengan kandungan protein 31-33% diberikan 3 kali sehari secara *ad libitum*. Empat puluh ikan disampling setiap 2 minggu dengan mengukur panjang dan berat. Parameter yang dihitung meliputi pertumbuhan mutlak, pertumbuhan spesifik, hubungan panjang-berat dan faktor kondisi. Data pertumbuhan dianalisis menggunakan analisis sidik ragam (ANOVA) dan dilanjutkan uji *Duncan's Multiple Range Test* (DMRT) apabila terdapat perbedaan signifikan 95%. Hasil penelitian menunjukkan bahwa penggunaan aerasi *microbubble generator* menghasilkan pertumbuhan mutlak dan spesifik yang lebih tinggi ( $P < 0.05$ ) dibandingkan dengan aerasi blower dan kontrol. Faktor kondisi ikan menunjukkan keadaan normal pada setiap perlakuan.

Kata kunci : *blower*, *microbubble aeration*, nila merah, pertumbuhan, resirkulasi

## ABSTRACT

This research aims to study the growth of red tilapia (*Oreochromis* sp.) Nilasa that cultured in recirculation systems. The study was conducted from April to August 2018 and treatments consisted of the use of aeration by microbubble generator (MBG), blower aeration, and control (without aeration). Red tilapia fingerling sizing  $\pm 9$  cm length and  $\pm 16$  gram weight were cultured in 6 cemented ponds of 2 m x 2 m with 0.6 m water depth. Each treatment replicated 2 times. Commercial feed with protein content of 31-33% given 3 times/day by ad libitum. Forty fish were sampled every 2 weeks for weight and length measurement. The parameter calculated were absolute growth, specific growth, long-weight relationships and condition factor. Growth data were analyzed using analysis of variance (ANOVA) and continued with Duncan's Multiple Range Test (DMRT) if there are different among treatment with significance 95%. The results showed that the use of microbubble generator aeration resulted in higher absolute and specific growth ( $P < 0.05$ ) compared to blower aeration and control, meanwhile condition factor of fish was normal in every treatment.

Keyword : blower, growth, microbubble aeration, recirculation, red tilapia