

INTISARI

PENGARUH SALINITAS TERHADAP PERFORMA PERTUMBUHAN NILA MERAH (*Oreochromis sp.*) HASIL PERSILANGAN BERBAGAI STRAIN SELAMA PEMBESARAN

Penelitian ini bertujuan untuk mengetahui pengaruh salinitas terhadap performa nila merah hasil persilangan berbagai strain yang meliputi sintasan, laju pertumbuhan, dan rasio konversi pakan serta mengetahui salinitas optimal pada performa nila merah hasil persilangan berbagai strain. Penelitian dilaksanakan dengan metode eksperimental menggunakan Rancangan Acak Lengkap (RAL) yang terdiri atas empat perlakuan yang masing-masing diulang sebanyak tiga kali. Perlakuan dalam penelitian ini meliputi perlakuan salinitas 0, 10, 20, dan 30 ppt. Rerata ukuran benih yang digunakan yaitu dengan berat $\pm 35-40$ g dan panjang ± 13 cm. Nila merah sebanyak 15 ekor dipelihara dalam ember dengan ukuran 50 L yang diisi air sebanyak 45 L selama 90 hari. Benih diberi pakan sebanyak 3% dari total biomassa. Berat dan panjang nila merah serta kualitas air diamati setiap 15 hari. Hasil pengamatan berat dan panjang kemudian diuji dengan analisis sidik ragam (ANOVA) kemudian dilanjutkan dengan uji *Tukey* apabila terdapat perbedaan yang signifikan. Kemudian, dilakukan uji *polynomial orthogonal* untuk menentukan nilai optimal. Nila merah yang dipelihara dalam media bersalinitas berbeda memiliki sintasan berkisar 75,56-91,11%, pertumbuhan berat dan panjang mutlak berkisar 17,65-31,01 g dan 2,83-3,33 cm, pertumbuhan berat dan panjang spesifik berkisar 0,40-0,65%/hari dan 0,21-0,28%/hari, serta rasio konversi pakan berkisar 1,47-2,59. Terdapat perbedaan yang signifikan di antara keempat perlakuan salinitas terhadap pertumbuhan mutlak dan spesifik serta rasio konversi pakan, sedangkan tidak pada sintasan. Hasil uji *polynomial orthogonal* menunjukkan bahwa salinitas 14 ppt dan 17 ppt memberikan pengaruh terbaik terhadap pertumbuhan berat dan panjang mutlak, salinitas 13 ppt dan 19 ppt memberikan pengaruh terbaik terhadap pertumbuhan berat dan panjang spesifik, serta salinitas 12 ppt memberikan nilai rasio konversi pakan yang lebih kecil pada nila merah.

Kata kunci: konversi rasio pakan, nila merah, osmoregulasi, pertumbuhan, salinitas, sintasan

ABSTRACT

EFFECT OF SALINITY ON GROWTH PERFORMANCE RED TILAPIA (*Oreochromis sp.*) RESULTS OF CROSSING VARIOUS STRAINS DURING GROWING UP

This research aims to determine the effect of salinity on the performance of red tilapia resulting from crossing various strains, including survival, growth rate and feed conversion ratio, as well as determining the optimal salinity on the performance of red tilapia resulting from crossing various strains. The research was carried out using an experimental method using a completely randomized design consisting of four treatments, each repeated three times. The treatments in this study included salinity treatments of 0, 10, 20, and 30 ppt. The average size of the seeds used is ± 35 -40 g in weight and ± 13 cm in length. 15 red tilapia were kept in a 50 L bucket filled with 45 L of water for 90 days. Seeds are fed as much as 3% of the total biomass. The weight and length of red tilapia and water quality were observed every 15 days. The results of weight and length observations were then tested using analysis of variance (ANOVA) then continued with the Tukey test if there were significant differences. Then, an orthogonal polynomial test was carried out to determine the optimal value. Red tilapia reared in different salinity media had survival rates ranging from 75.56 to 91.11%, absolute weight and length growth ranged from 17.65 to 31.01 g and 2.83 to 3.33 cm, specific weight and length growth ranged from 0.40-0.65%/day and 0.21-0.28%/day, and the feed conversion ratio ranges from 1.47-2.59. There were significant differences between the four salinity treatments in absolute and specific growth and feed conversion ratio, but not in survival. The results of the orthogonal polynomial test showed that salinity of 14 ppt and 17 ppt had the best influence on growth in absolute weight and length, salinity of 13 ppt and 19 ppt had the best influence on growth in specific weight and length, and salinity of 12 ppt gave a smaller feed conversion ratio value. on red indigo.

Keywords: feed ratio conversion, growth, osmoregulation, red tilapia, salinity, survival