

## Intisari

### PERFORMA BENIH NILA MERAH (*Oreochromis* sp.) HASIL PEMIJAHAN SILANG STRAIN NILASA DENGAN RED NIFI PADA PENDEDERAN II

Penelitian ini bertujuan untuk mengetahui performa benih nila merah meliputi sintasan, pertumbuhan mutlak, pertumbuhan spesifik, *Feed Conversion Ratio* (FCR), dan nilai heterosis benih pendederan II hasil persilangan strain Nilasa dengan Red NIFI. Penelitian dilakukan dengan percobaan pendederan II menggunakan metode Rancangan Acak Lengkap dengan 4 perlakuan berbeda dan 3 kali ulangan. Perlakuan meliputi benih hasil persilangan betina Nilasa – jantan Nilasa (♀CK-♂CK), betina Nilasa – jantan Red NIFI (♀CK-♂SB), betina Red NIFI – jantan Red NIFI (♀SB-♂SB), dan betina Red NIFI – jantan Nilasa (♀SB-♂CK). Benih dipelihara dalam hapa berukuran 2x1x1 m<sup>3</sup> dengan *mesh size* 3–4 mm. Benih rata-rata panjang dan berat awal 6,50 cm dan 4,66 gram dipelihara selama 44 hari dengan padat tebar 50 ekor/m<sup>3</sup>. Pakan buatan bentuk butiran dengan kandungan protein 39% diberikan 2 kali sehari dan dosis 5–10%. Pengamatan panjang dan berat dilakukan 2 minggu sekali sedangkan kualitas air dilakukan pada awal dan akhir masa pemeliharaan. Hasil pengamatan pertumbuhan diuji dengan analisis sidik ragam (ANOVA) dan dilanjutkan dengan *Duncan's Multiple Range Test* apabila terdapat beda nyata. Berdasarkan penelitian, dihasilkan sintasan berkisar 95,33–98%, pertumbuhan panjang dan berat mutlak 2,88–3,87 cm dan 8,25–13,13 gram, pertumbuhan panjang dan berat spesifik 0,825–1,057% dan 2,223–2,897%, serta FCR 1,057–1,693%. Dari penelitian dapat disimpulkan bahwa masing-masing perlakuan menunjukkan pengaruh tidak beda nyata ( $P>0,05$ ) terhadap sintasan namun beda nyata ( $P<0,05$ ) terhadap pertumbuhan dan FCR benih nila merah, serta persilangan *outbreeding* mengungguli rataan *inbreeding*. Hasil terbaik didapatkan pada perlakuan *outbreeding* ♀CK-♂SB dengan pertumbuhan sebesar 2,897% dan FCR 1,057%.

Kata kunci: FCR, heterosis, nila merah, pendederan II, pertumbuhan, sintasan


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### Abstract

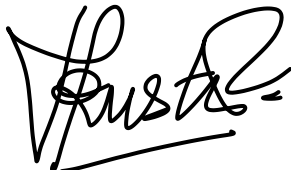
#### SEED PERFORMANCE OF RED TILAPIA (*Oreochromis* sp.) CROSSES BETWEEN NILASA AND RED NIFI STRAINS IN THE SECOND REARING STAGE

This research aims to determine performance include survival, growth which consist of absolute growth and specific growth, percentage of feed conversion ratio (FCR), and heterosis value of Nilasa and Red NIFI in the second rearing stage. The study was conducted by experimental method using a Completely Randomized Design which consist 4 treatments and 3 replications. The treatments included female Nilasa – male Nilasa (♀CK-♂CK), female Nilasa – male Red NIFI (♀CK-♂SB), female Red NIFI – male Red NIFI (♀SB-♂SB), and female Red NIFI – male Nilasa (♀SB-♂CK). The juvenile of red tilapia is cultured in hapa measuring 2x1x1 m<sup>3</sup> with mesh size 3–4 mm. The juvenile with 6,50 cm length and 4,66 grams of weight are cultured for 44 days with density 50 fish/m<sup>3</sup>. The granule food was given 2 times a day with the feed ratio decreasing by 5–10% with 39% protein content. Observations of growth parameters were monitored every 2 weeks with a sampling system whereas water quality were monitored twice during research. The growth parameters data were analyzed by Analysis of Variance (ANOVA) then continued with Duncan's Multiple Range Test if there are any significant differences between the treatments. Based on the research, the result of survival rate amounted to 95,33–98%, absolute length and weight growth 2,88–3,87 cm and 8,25–13,13 gram, specific length and weight growth 0,825–1,057% and 2,223–2,897%, and FCR 1,057–1,693%. From the research it is concluded that effect of treatment doesn't show any differences ( $P>0,05$ ) on survival rate but there are any differences ( $P<0,05$ ) on growth and FCR, and outbreeding treatments outperform inbreeding treatments. The results showed that outbreeding treatment which is ♀CK-♂SB get the highest marks on growth amounted to 2,897% with amounted FCR to 1,057%.

Keywords: FCR, growth, heterosis, red tilapia, second rearing, survival rate

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