

## INTISARI

### Pengaruh Suhu terhadap Sintasan dan Pertumbuhan Benih F2 Hibrida Ikan Nila Merah Nilasa (*Oreochromis sp.*)

Penelitian ini bertujuan untuk mengetahui pengaruh suhu terhadap laju sintasan, pertumbuhan, dan rasio konversi pakan benih F2 hibrida ikan nila merah Nilasa (*Oreochromis sp.*). Penelitian dilaksanakan selama delapan minggu di Ruang Genetika dan Pembenihan, Laboratorium Akuakultur, Departemen Perikanan, Fakultas Pertanian, Universitas Gadjah Mada. Rancangan percobaan yang digunakan adalah Rancangan Acak Lengkap dengan empat perlakuan suhu, yaitu 27, 29, 31, dan 33 °C, masing-masing tiga kali ulangan. Benih F2 hibrida ikan nila merah Nilasa yang digunakan berukuran panjang 6–8 cm yang diperoleh dari Balai Pengembangan Teknologi Perikanan Budidaya (BPTPB) Cangkringan, Sleman. Benih ikan tersebut dipelihara dalam akuarium berkapasitas 100 L air dengan kepadatan 10 ekor/akuarium, dilengkapi dengan aerasi serta penyiponan rutin. Parameter yang diamati meliputi laju sintasan, pertumbuhan berat dan panjang, serta rasio konversi pakan. Hasil penelitian menunjukkan bahwa perbedaan suhu memberikan pengaruh berbeda nyata terhadap laju sintasan, namun tidak berpengaruh nyata terhadap pertumbuhan dan rasio konversi pakan benih F2 hibrida ikan nila merah Nilasa. Nilai laju sintasan tertinggi diperoleh pada perlakuan suhu 33 °C yaitu sebesar 90 %. Performa benih F2 hibrida ikan nila merah Nilasa yang dipelihara pada suhu 27–33 °C menunjukkan hasil laju pertumbuhan berat mutlak berkisar antara 17,19–19,96 g, laju pertumbuhan berat spesifik sebesar 0,31–0,36 % per hari, laju pertumbuhan panjang mutlak sebesar 3,83–4,45 cm, laju pertumbuhan panjang spesifik sebesar 0,068–0,079 % per hari, serta nilai rasio konversi pakan berkisar antara 1,17–1,52. Benih F2 hibrida ikan nila merah Nilasa mampu hidup dan tumbuh dengan baik pada kisaran suhu 27–33 °C.

**Kata kunci:** akuakultur, efisiensi pakan, ikan nila merah, pertumbuhan, suhu air

## ABSTRACT

### Effect of Temperature on Survival and Growth of F2 Nilasa Red Tilapia Hybrid Fry (*Oreochromis sp.*)

This study aimed to determine the effect of temperature on the survival rate, growth, and feed conversion ratio of F2 Nilasa red tilapia hybrid fry (*Oreochromis sp.*). The research was conducted for eight weeks at the Genetics and Hatchery Room, Aquaculture Laboratory, Department of Fisheries, Faculty of Agriculture, Universitas Gadjah Mada. A completely randomized design was applied with four temperature treatments, namely 27, 29, 31, and 33 °C, each with three replicates. The F2 Nilasa red tilapia hybrid fry used were 6–8 cm in length, obtained from the Center for Aquaculture Technology Development (BPTPB) Cangkringan, Sleman. The fish were reared in 100 L aquaria at a stocking density of 10 fish/aquarium, equipped with aeration and routine siphoning. The observed parameters included survival rate, weight and length growth, and feed conversion ratio. The results showed that temperature differences had a significant effect on survival rate, but did not significantly affect growth and feed conversion ratio of F2 Nilasa red tilapia hybrid fry. The highest survival rate was observed at 33 °C, reaching 90 %. The performance of the F2 Nilasa red tilapia hybrid fry reared at 27–33 °C showed an absolute weight growth ranged from 17.19-19.96 g, specific weight growth ranged from 0.31-0.36 % day<sup>-1</sup>, absolute length growth ranged from 3.83-4.45 cm, specific length growth ranged from 0.068-0.079 % day<sup>-1</sup>, and feed conversion ratio values ranged from 1.17-1.52. The F2 Nilasa red tilapia hybrid fry can survive and grow well at temperatures ranging from 27 to 33 °C.

**Keywords:** aquaculture, feed efficiency, growth, red tilapia, water temperature