



Intisari

DAYA TAHAN NILA MERAH (*Oreochromis sp.*)
STRAIN CANGKRINGAN PADA pH RENDAH

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Penelitian ini bertujuan untuk mengetahui daya tahan nila merah strain cangkkringan pada pH rendah. Penelitian ini menggunakan rancangan acak lengkap (RAL) terdiri atas 4 perlakuan dan 3 ulangan. Perlakuan terdiri atas pemeliharaan nila pada pH 3; 4,5; 6 dan 7,5. Penelitian menggunakan 12 akuarium berukuran 60x50x40 cm³. Nila yang digunakan berukuran 2-4 cm dan 5-7 cm. Pengamatan daya tahan nila dilakukan selama 96 jam. Parameter yang diamati meliputi *lethal concentration* (LC50-96jam), *median survival time* (ST50-96jam), gerakan operkulum dan kualitas air. Hasil analisis menunjukkan pH rendah mempengaruhi daya tahan nila merah strain cangkkringan. Pada pH 3, ikan mengalami stres ditunjukkan dengan tingginya frekuensi gerakan operkulum. Hasil analisis probit menunjukkan kadar pH rendah yang mengakibatkan kematian 50 % populasinila merah strain cangkkringan ukuran 2-4 cm adalah $4,67 \pm 0,186$, sedangkan pada ukuran 5-7 cm adalah $4,50 \pm 0,192$.

Kata kunci : daya tahan, pH rendah, nila merah, strain cangkkringan



Abstract

TOLERANCE OF RED TILAPIA (*Oreochromis sp.*)
STRAIN CANGKRINGAN AT LOW pH

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This study aim was to determine the tolerance of red tilapia (*Oreochromis sp.*) strains Cangkringan at low pH. This study was done in a completely randomized design (CRD) consisting of 4 treatments with three replications. The treatments where consisted of rearing the tilapia on different pH at 3, 4.5, 6 and 7.5. The study used 12 aquarium with size 60x50x40 cm. Tilapia at 2-4 cm and 5-7 cm length were used in this study. Observations tolerancetilapia was performed for 96 hours. The parameters were calculated on lethal concentration (LC50-96hours), median survival time (ST5096hours), operculum movement and water quality. The result showed that the low pH affectstolerance of red tilapia strains Cangkringan. At pH 3, the fish was stressed as indicated by the high frequency operculum movement. The pH levels that could kill 50 % of red tilapia strains Cangkringan at 2-4 cm and 5-7 cm length were 4.67 ± 0.186 and 4.50 ± 0.192 respectively.

Keywords: tolerance, low pH, red tilapia, strain cangkringan