

ABSTRAK

Kualitas air adalah salah satu komponen penting dalam kegiatan budidaya ikan. Penelitian ini bertujuan mengetahui nilai kualitas air budidaya ikan Nila (*Oreochromis niloticus*), kesesuaian kualitas air budidaya terhadap standar baku kualitas air untuk budidaya ikan Nila, serta pengaruh kualitas air terhadap pertumbuhan dan kelangsungan hidup ikan Nila yang dibudidayakan di Pokdakan Mina Mandiri, Desa Panembangan, Kecamatan Cilongok. Metode penelitian yang dilakukan adalah observasi dengan mengukur data kualitas air yang dianalisis secara deskriptif sementara pertumbuhan dan kelangsungan hidup ikan Nila dianalisis secara statistik dengan *T-Test* dan *Mann-Whitney*. Berdasarkan hasil penelitian, nilai kualitas air budidaya ikan Nila di Pokdakan Mina Mandiri meliputi temperatur (24-27 °C), kecerahan (25-32,5 cm), TDS (31-44 mg/L), pH (6-7), oksigen terlarut (5,2-5,7 mg/L), ammonia (0,0014-0,003 mg/L), nitrit (0,33-1 mg/L), nitrat (0-6,7 mg/L), fosfat (1-1,67 mg/L). Kualitas air budidaya ikan Nila di Pokdakan Mandiri sudah sesuai dengan standar baku kualitas air untuk budidaya ikan Nila. Nilai pertumbuhan panjang mutlak dan pertumbuhan berat mutlak ikan Nila di kolam demplot sebesar $3,63 \pm 3,04^a$ cm dan $45,59 \pm 37,7^a$ g, sementara di kolam petani sebesar $4,36 \pm 1,65^a$ cm dan $45,466 \pm 29,2^a$ g. Nilai kelangsungan hidup ikan Nila di kolam demplot $92,67 \pm 3,08^a\%$ dan di kolam petani $93,33 \pm 2,95^a\%$. Kualitas air memiliki pengaruh terhadap pertumbuhan dan kelangsungan hidup ikan Nila.

Kata kunci : *Oreochromis niloticus*; kualitas air; pertumbuhan ikan; kelangsungan hidup; Desa Panembangan

ABSTRACT

Water quality is one of the important aspect in fish cultivation. This study was conducted to determine water quality value, the suitability of water quality to the standards, and effect of water quality on growth and survival rate of Tilapia (*Oreochromis niloticus*) that cultivated in Pokdakan Mina Mandiri, Panembangan Village, Cilongok District. The method used in this research was observation method by measuring water quality two ponds then was analyzed descriptively, meanwhile the growth and survival rate of Tilapia were analyzed statistically by *T-Test* and *Mann-Whitney*. The results showed, the water quality value of Tilapia cultivation is temperature (24-27 °C), water visibility (25-32,5 cm), TDS (31-44 mg/L), pH (6-7), dissolved oxygen (5,2-5,7 mg/L), ammonia (0,0014-0,003 mg/L), nitrite (0,33-1 mg/L), nitrate (0-6,7 mg/L), phosphate (1-1,67 mg/L). Water quality of Tilapia cultivation at Pokdakan Mandiri is in accordance with the good standard water quality for Tilapia. The absolute length and weight growth of Tilapia in demonstration plot's pond is $3,63 \pm 3,04^a$ cm and $45,59 \pm 37,7^a$ g, meanwhile in farmer's pond is $4,36 \pm 1,65^a$ cm and $45,466 \pm 29,2^a$ g. Survival rate of Tilapia in two ponds is $92,67 \pm 3,08^a\%$ and $93,33 \pm 2,95^a\%$. Water quality has an influence on the growth and survival rate of Tilapia.

Key words : *Oreochromis niloticus*; water quality; fish growth; survival rate; Panembangan village

