

PENGARUH PADAT TEBAR TERHADAP PERTUMBUHAN IKAN NILA (*Oreochromis niloticus*) DI KOLAM *TEACHING FACTORY*

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh variasi padat tebar terhadap pertumbuhan ikan nila (*Oreochromis niloticus*) yang dibudidayakan di Kolam *Teaching Factory* Bioteknologi Perikanan Universitas Pendidikan Ganesha. Padat tebar merupakan salah satu faktor penting dalam sistem budidaya karena berpengaruh terhadap kualitas air, ketersediaan pakan, serta tingkat stres ikan yang secara langsung memengaruhi pertumbuhan dan kelangsungan hidup. Penelitian ini menggunakan metode deskriptif kuantitatif dengan tiga variasi padat tebar, yaitu 50 ekor/m³ (rendah), 75 ekor/m³ (sedang), dan 100 ekor/m³ (tinggi). Pemeliharaan ikan dilakukan selama 31 hari dengan pemberian pakan pelet berkadar protein 30–32% sebanyak 3–5% dari biomassa per hari. Parameter yang diamati meliputi pertambahan bobot, pertambahan panjang, laju pertumbuhan spesifik (*Specific Growth Rate*/SGR), dan tingkat kelangsungan hidup (*Survival Rate*/SR). Hasil penelitian menunjukkan bahwa variasi padat tebar memberikan pengaruh terhadap pertumbuhan ikan nila. Perlakuan padat tebar sedang menghasilkan pertumbuhan bobot dan panjang yang lebih optimal dibandingkan padat tebar rendah dan tinggi. Padat tebar tinggi cenderung menurunkan pertumbuhan individu akibat meningkatnya kompetisi pakan dan ruang serta potensi penurunan kualitas air. Berdasarkan hasil penelitian, dapat disimpulkan bahwa padat tebar sedang merupakan tingkat kepadatan yang paling optimal untuk mendukung pertumbuhan ikan nila di Kolam *Teaching Factory* Bioteknologi Perikanan Universitas Pendidikan Ganesha.

Kata kunci: Padat tebar, pertumbuhan, ikan nila (*Oreochromis niloticus*), *Teaching Factory*, budidaya perikanan.

THE EFFECT OF STOCKING DENSITY ON THE GROWTH OF NILE TILAPIA (*Oreochromis niloticus*) IN THE TEACHING FACTORY POND

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ABSTRACT

This study aimed to analyze the effect of different stocking densities on the growth of Nile tilapia (*Oreochromis niloticus*) cultured in the Teaching Factory Pond of the Fisheries Biotechnology Program, Ganesha University of Education. Stocking density is one of the most important factors in aquaculture systems because it affects water quality, feed availability, and fish stress levels, all of which directly influence growth performance and survival. This research employed a quantitative descriptive method using three stocking density treatments: 50 fish/m³ (low), 75 fish/m³ (medium), and 100 fish/m³ (high). The fish were reared for 31 days and fed commercial pellet feed containing 30–32% crude protein at a feeding rate of 3–5% of total biomass per day. The observed parameters included weight gain, length gain, Specific Growth Rate (SGR), and Survival Rate (SR). The results showed that stocking density affected the growth performance of Nile tilapia. The medium stocking density treatment produced more optimal weight gain and length growth than the low and high stocking density treatments. In contrast, the high stocking density tended to reduce individual fish growth due to increased competition for feed and space, as well as the potential deterioration of water quality. Based on the findings, it can be concluded that the medium stocking density is the most suitable density level for supporting the growth of Nile tilapia in the Teaching Factory Pond of the Fisheries Biotechnology Program, Ganesha University of Education.

Keywords: stocking density, growth, Nile tilapia (*Oreochromis niloticus*), Teaching Factory, aquaculture.

