

# **ANALISIS *Feed Conversion Ratio* (FCR) PADA BUDIDAYA IKAN NILA KERAMBA JARING APUNG DI DANAU BATUR**

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## **ABSTRAK**

Ikan nila (*Oreochromis niloticus*) merupakan komoditas unggulan di Danau Batur, namun keberlanjutan produksinya menghadapi kendala berupa fluktuasi efisiensi pakan antar pembudidaya. Penelitian ini bertujuan menganalisis kinerja produksi, khususnya *Feed Conversion Ratio* (FCR) dan *Survival Rate* (SR), secara spasial serta mengidentifikasi faktor teknis dan biologis yang memengaruhinya. Metode yang digunakan adalah deskriptif kuantitatif dengan pendekatan *ex-post facto* terhadap 20 pembudidaya di empat wilayah (Barat, Timur, Utara, dan Selatan). Hasil uji *One-Way ANOVA* menunjukkan adanya perbedaan signifikan ( $p < 0,05$ ) pada nilai FCR antar lokasi. Wilayah Barat memiliki efisiensi terbaik (FCR  $1,06 \pm 0,18$ ; SR 66%), sedangkan wilayah Timur terendah (FCR  $1,39 \pm 0,03$ ). Analisis regresi mengungkap durasi pemeliharaan berpengaruh signifikan ( $p=0,010$ ), menunjukkan peran pakan alami seperti perifiton. Inefisiensi di wilayah Timur dipicu fenomena *phantom feeding* akibat mortalitas awal tinggi. Rekomendasi meliputi perbaikan manajemen benih, optimalisasi pakan alami, dan penerapan puasa berkala.

Kata Kunci: Ikan Nila, Danau Batur, *Feed Conversion Ratio* (FCR), *Phantom feeding*, Pakan Alami.

***ANALYSIS OF FEED CONVERSION RATIO (FCR) OF NILE TILAPIA  
(Oreochromis niloticus) IN FLOATING NET CAGES AT LAKE BATUR***

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***ABSTRACT***

*Nile tilapia (Oreochromis niloticus) is a leading commodity in Lake Batur; however, its production sustainability is challenged by fluctuations in feed efficiency among farmers. This study aims to analyze production performance, particularly Feed Conversion Ratio (FCR) and Survival Rate (SR), spatially and to identify the technical and biological factors influencing them. A descriptive quantitative method with an ex post facto approach was applied to 20 farmers across four regions (West, East, North, and South). The One-Way ANOVA test results indicated significant differences ( $p < 0.05$ ) in FCR values among locations. The western region showed the best efficiency (FCR  $1.06 \pm 0.18$ ; SR 66%), while the eastern region recorded the lowest (FCR  $1.39 \pm 0.03$ ). Regression analysis revealed that rearing duration had a significant effect ( $p = 0.010$ ), indicating the role of natural feed such as periphyton. Inefficiency in the eastern region was associated with phantom feeding due to high initial mortality. Recommended strategies include improved seed management, optimization of natural feed, and periodic fasting practices.*

***Keywords: Nile Tilapia (Oreochromis niloticus); Lake Batur; Feed Conversion Ratio (FCR); Phantom Feeding; Natural Feed Resources.***