

Intisari

Pengaruh Dosis Probiotik *Bacillus tropicus* PCP1 Terhadap Sintasan dan Pertumbuhan Benih Gurami (*Osphronemus goramy*, Lacepede 1801)

Penelitian ini bertujuan untuk mengevaluasi pengaruh pemberian probiotik *Bacillus tropicus* PCP1 terhadap pertumbuhan dan sintasan ikan gurami (*Osphronemus goramy*) pada tiga stadia perkembangan, larva (10 hari), postlarva (25 hari), dan juvenil (10 hari). Empat perlakuan diterapkan yakni kontrol (tanpa probiotik) dan tiga dosis probiotik yang diaplikasikan secara langsung ke air budidaya dengan dosis pada P1 = 10^2 sel/mL, P2 = 10^4 sel/mL, P3 = 10^6 sel/mL pada stadia postlarva dan tiga dosis probiotik yang diaplikasikan secara oral melalui suplementasi ke dalam pakan dengan dosis pada P1 = 10^2 sel/gr, P2 = 10^4 sel/gr, P3 = 10^6 sel/gr pada stadia juvenil. Parameter yang diamati meliputi laju pertumbuhan panjang spesifik dan laju pertumbuhan berat spesifik, serta berat dan panjang mutlak, serta sintasan. Hasil menunjukkan bahwa semua perlakuan, termasuk kontrol, menghasilkan sintasan 100%, pertumbuhan mutlak 0,224-0,2975 g, pertumbuhan panjang mutlak 0,54-0,5767, laju pertumbuhan berat spesifik 6,52-7,19% dan laju pertumbuhan panjang spesifik 2,74-2,88% yang tidak berbeda nyata ($P > 0,005$). Berdasarkan hasil tersebut pemberian probiotik *Bacillus tropicus* PCP1 pada berbagai dosis (10^2 – 10^6 sel/mL atau sel/g) tidak berpengaruh signifikan terhadap pertumbuhan dan sintasan ikan gurami di semua stadia (larva, postlarva, juvenil), karena semua perlakuan menunjukkan hasil yang tidak berbeda nyata ($P < 0,05$).

KATA KUNCI : *Bacillus*, gurami, pertumbuhan, probiotik, sintasan.

Abstract

Doses Effect of *Bacillus tropicus* PCP1 Probiotic on Survival and Growth Rates of Gourami (*Osphronemus goramy*, Lacepede 1801) Fry

This study aimed to evaluate the effect of *Bacillus tropicus* PCP1 probiotic administration on the growth and survival of gourami (*Osphronemus goramy*) across three developmental stages: larval (10 days), postlarval (25 days), and juvenile (10 days). Four treatments were applied: control (no probiotic), and three probiotic doses administered directly into the culture water during the postlarval stage ($P1 = 10^2$ cell/mL, $P2 = 10^4$ cell/mL, $P3 = 10^6$ cell/mL), followed by oral supplementation through feed during the juvenile stage ($P1 = 10^2$ cell/g, $P2 = 10^4$ cell/g, $P3 = 10^6$ cell/g). Measured parameters included specific growth rate (SGR) based on weight and length, absolute weight and length, and survival rate. The results showed that all treatments, including the control, yielded a 100% survival rate, absolute growth of 0.224–0.2975 g, absolute length growth of 0.54–0.5767 cm, specific weight growth rate of 6.52–7.19%, and specific length growth rate of 2.74–2.88%, with no significant differences ($P > 0.05$) among them. Based on the results, the administration of the probiotic *Bacillus tropicus* PCP1 at various doses (10^2 – 10^6 cells/mL or cells/g) did not significantly affect the growth and survival rate of gourami fish across all developmental stages (larvae, post-larvae, juveniles), as all treatments showed no significant differences ($P > 0.05$).

KEYWORDS : *Bacillus*, gourami, growth, probiotic, survival rate.