

## INTISARI

### PERTUMBUHAN LELE (*Clarias sp.*) DAN KUALITAS AIR DENGAN PERLAKUAN DOSIS PROBIOTIK

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Penelitian ini bertujuan untuk mengetahui pengaruh pemberian dosis probiotik yang berbeda terhadap pertumbuhan, nisbah konversi pakan (*Feed Conversion Ratio*/FCR), sintasan, dan kualitas air budidaya lele, serta untuk mengetahui dosis probiotik optimal yang dapat memberikan pertumbuhan, FCR, sintasan, dan kualitas air budidaya lele yang paling baik. Penelitian dilaksanakan pada bulan September s/d November 2021 di Unit Kolam Percobaan Stasiun Penelitian Departemen Perikanan, Fakultas Pertanian, Universitas Gadjah Mada. Lele dipelihara selama 84 hari dalam wadah budidaya berisi 70 L air dengan padat tebar 60 ekor, tanpa menggunakan aerator dan dengan pergantian air 5% setiap hari. Dosis pakan yang diberikan yaitu 3%. Penelitian dirancang menggunakan metode Rancangan Acak Lengkap (RAL) yang terdiri dari 4 perlakuan dengan 3 kali ulangan. Perlakuan dosis probiotik pada budidaya lele meliputi 0, 2, 4, 8 mL/kg pakan. Mikrobia yang terkandung pada probiotik tersebut meliputi *Lactobacillus sp.*, *Acetobacter sp.*, dan Yeast. Probiotik dicampurkan dalam pakan dan didiamkan selama semalam. Parameter yang diamati meliputi pertumbuhan, FCR, sintasan, dan kualitas air budidaya. Hasil penelitian menunjukkan bahwa dosis probiotik yang berbeda berpengaruh signifikan terhadap FCR. Perlakuan dosis probiotik 0, 2, 4 mL/kg pakan menghasilkan FCR yang lebih rendah (FCR = 1,53 s/d 1,54) dibandingkan dengan dosis probiotik 8 mL/kg pakan (FCR = 1,74). Kualitas air yang diperoleh meliputi suhu 26,9 – 34,9 °C; pH 6,7 – 7,9; alkalinitas 30 – 514,7 ppm; O<sub>2</sub> terlarut 0,03 – 1,07 mg/L; CO<sub>2</sub> bebas 3 – 12,6 mg/L, dan amonia total 3,52 – 43,49 mg/L. Kualitas air selama pemeliharaan sesuai untuk budidaya lele, namun kadar O<sub>2</sub> terlarut rendah; CO<sub>2</sub> bebas tinggi.

Kata kunci : budidaya lele, kualitas air, pertumbuhan, probiotik, sintasan

## ABSTRACT

### GROWTH OF CATFISH (*Clarias sp.*) AND WATER QUALITY WITH DIFFERENT PROBIOTIC DOSAGE TREATMENT

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This study aims to determine the effect of different doses of probiotics on growth, Feed Conversion Ratio (FCR), survival rate, and quality of catfish cultured water, as well as to determine the optimal dose of probiotics that can provide growth, FCR, survival rate, and quality of catfish cultured water. The research was carried out from September to November 2021 at the Experimental Pond Unit of the Research Station of the Department of Fisheries, Faculty of Agriculture, Gadjah Mada University. Catfish were reared for 84 days in a culture container containing 70 L of water with a stocking density of 60 heads, without using an aerator and with 5% water change every day. The dose of feed given is 3%. The study was designed using a Completely Randomized Design (CRD) method consisting of 4 treatments with 3 replications. Treatment doses of probiotics in catfish cultivation include 0, 2, 4, 8 mL/kg feed. The microbes contained in these probiotics include *Lactobacillus sp.*, *Acetobacter sp.*, and Yeast. Probiotics are mixed in the feed and left overnight. Parameters observed included growth, FCR, survival rate, and cultured water quality. The results showed that different doses of probiotics had a significant effect on FCR. Treatment with probiotic doses of 0, 2, 4 mL/kg feed resulted in a lower FCR (FCR = 1,53 to 1,54) compared to the probiotic dose of 8 mL/kg feed (FCR = 1,74). The water quality obtained includes a temperature 26,9 – 34,9 °C; pH 6,7 – 7,9; alkalinity 30 – 514,7 ppm; dissolved O<sub>2</sub> 0,03 – 1,07 mg/L; CO<sub>2</sub> 3 – 12,6 mg/L, and total ammonia 3,52 – 43,49 mg/L. Water quality during rearing is suitable for catfish cultivation, but the dissolved O<sub>2</sub> content is low; CO<sub>2</sub> high.

**Keywords:** catfish cultivation, water quality, growth, probiotics, survival rate