

PENGARUH PROBIOTIK *Bacillus* spp; *Lactococcus raffinolactis* dan *Saccharomyces cerevisiae* TERHADAP KUALITAS AIR PADA BUDIDAYA LELE (*Clarias* sp.)

INTISARI

Probiotik didefinisikan sebagai mikroorganisme yang menguntungkan. Tujuan dari penelitian ini adalah mengetahui pengaruh penambahan probiotik *Bacillus* spp; *Lactococcus raffinolactis* dan *Saccharomyces cerevisiae* terhadap kualitas air budidaya lele (*Clarias* sp.). Penelitian dilaksanakan menggunakan metode eksperimental dengan Rancangan Acak Lengkap (RAL) terdiri dari 2 perlakuan dan 4 ulangan. Perlakuan yang diberikan yaitu tanpa pemberian probiotik /kontrol (P1) dan pemberian probiotik *Bacillus* spp, *Lactococcus raffinolactis* dan *Saccharomyces cerevisiae* (P2). Pemeliharaan lele dilakukan selama 60 hari dengan frekuensi pemberian pakan 2 kali sehari dengan dosis 2-5% bobot biomassa. Probiotik yang digunakan yaitu 100 mL/kg pakan sedangkan *S. cerevisiae* dengan takaran 1 g/kg pakan. Parameter kualitas air terdiri dari suhu, pH, kadar oksigen terlarut/ DO, kadar ammonia, kadar nitrat, kadar nitrit, densitas bakteri, densitas *Aeromonas* dan densitas *Pseudomonas*. Pengamatan parameter dilakukan setiap 2 minggu sekali. Hasil penelitian menunjukkan bahwa pemberian probiotik *Bacillus* spp, *Lactococcus raffinolactis* dan *Saccharomyces cerevisiae* tidak mempengaruhi parameter kualitas air (suhu, pH, oksigen terlarut, ammonia, nitrit, nitrat dan bakteri).

Kata kunci: *Bacillus* spp, kualitas air, *Lactococcus raffinolactis*, probiotik, *Saccharomyces cerevisiae*

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EFFECT OF PROBIOTIK *Bacillus* spp; *Lactococcus raffinolactis* and *Saccharomyces cerevisiae* on WATER QUALITY IN CATFISH CULTURE (*Clarias* sp.)

ABSTRACT

Probiotics are defined as beneficial microorganisms. The purpose of this study was to determine the effect of adding probiotics *Bacillus* spp; *Lactococcus raffinolactis* and *Saccharomyces cerevisiae* on the quality of catfish (*Clarias* sp) culture water. The study was carried out using an experimental method with a completely randomized design (CRD) consisting of 2 treatments and 4 replications. The treatment given was without giving probiotics control (P1) and giving probiotics *Bacillus* spp, *Lactococcus raffinolactis* and *Saccharomyces cerevisiae* (P2). Maintenance of catfish is carried out for 60 days with a frequency of feeding 2 times a day with a dose of 2-5% of biomass weight. The probiotic used was 100 mL/kg of feed while *S. cerevisiae* was at a rate of 1 g/kg of feed. Water quality parameters consisted of temperature, pH, dissolved oxygen, ammonia levels, nitrate levels, nitrite levels, bacterial density, *Aeromonas* density and *Pseudomonas* density. Parameter observations are carried out every 2 weeks. The results showed that the administration of probiotics *Bacillus* spp, *Lactococcus raffinolactis* and *Saccharomyces cerevisiae* did not affect water quality parameters (temperature, pH, dissolved oxygen, ammonia, nitrite, nitrate and bacteria.

Keywords: *Bacillus* spp, water quality, *Lactococcus raffinolactis*, probiotics, *Saccharomyces cerevisiae*

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