

## PENGARUH PEMBERIAN PROBIOTIK DALAM PAKAN TERHADAP EFISIENSI PAKAN DAN KUALITAS AIR PADA PEMBESARAN LELE (*Clarias sp.*)

### Intisari

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian probiotik dalam pakan terhadap efisiensi pakan dan kualitas air pada pembesaran lele. Probiotik yang digunakan mengandung bakteri *Lactobacillus acidophilus*, *Bifidobacterium longum*, *Streptococcus thermophilus*, dan *Saccharomyces cerevisiae*. Penelitian dilakukan di Pokdakan Mina Dompon Sejahtera, Kelurahan Gilangharjo, Kapanewon Pandak, Kabupaten Bantul, DIY. Penelitian ini menggunakan metode eksperimental dengan Rancangan Acak Lengkap (RAL) yang terdiri dari 4 perlakuan dan 3 ulangan. Perlakuan dosis probiotik terdiri dari 0;  $10^7$ ;  $2 \times 10^7$ ; dan  $3 \times 10^7$  sel/kg pakan. Lele dipelihara selama 56 hari dalam kolam terpal diameter 2 m dengan padat tebar 200 ekor/m<sup>3</sup>. Data rasio konversi pakan, rasio efisiensi protein dan efisiensi pemanfaatan pakan dianalisis menggunakan analisis sidik ragam atau *Analysis of Variance* (ANOVA) dengan tingkat kepercayaan 95%. Apabila terdapat hasil beda nyata antar perlakuan, maka dilanjutkan dengan uji DMRT (*Duncan's Multiple Range Test*). Data pengamatan kualitas air dianalisis secara deskriptif. Hasil penelitian menunjukkan bahwa pemberian probiotik dalam pakan berpengaruh nyata terhadap rasio efisiensi protein, tetapi tidak berpengaruh nyata terhadap rasio konversi pakan (FCR) dan efisiensi pemanfaatan pakan. Dosis terbaik adalah  $2 \times 10^7$  sel/kg pakan, dengan rasio efisiensi protein 3,67%, FCR 0,96 dan efisiensi pemanfaatan pakan 95,88. Pemberian probiotik tersebut dalam pakan tidak berpengaruh terhadap kualitas air.

Kata kunci: dosis, efisiensi pakan, kualitas air, lele, probiotik

## THE EFFECT OF PROBIOTICS ADDITION IN FEED ON FEED EFFICIENCY AND WATER QUALITY IN CATFISH (*Clarias sp.*) GROWING

### Abstract

This study aims to determine the effect of probiotics addition in feed on feed efficiency and water quality in catfish growing. The probiotics contained of *Lactobacillus acidophilus*, *Bifidobacterium longum*, *Streptococcus thermophilus*, and *Saccharomyces cerevisiae* bacteria. The research was conducted at the Pokdakan Mina Dompon Sejahtera, Gilangharjo Village, Pandak Subdistrict, Bantul Regency, DIY. This study used an experimental method with a completely randomized design (CRD) consisting of 4 treatments and 3 replications. The probiotic dose treatment consisted of 0;  $10^7$ ;  $2 \times 10^7$ ; dan  $3 \times 10^7$  cell/kg feed. The catfish were reared for 56 days in a tarpaulin pond with a diameter of 2 m with a stocking density of 200 individuals/m<sup>3</sup>. Feed conversion ratio, protein efficiency ratio and feed utilization efficiency were analyzed using Analysis of Variance (ANOVA) at 95% confidence level. If there are significantly different results between treatments, then proceed with the DMRT (Duncan's Multiple Range Test). Water quality data were analyzed descriptively. The results showed that probiotic addition in feed had a significant effect on protein efficiency ratio, but had no significant effect on feed conversion ratio (FCR) and feed utilization efficiency. The best dose is  $2 \times 10^7$  cell/kg of feed, with a protein efficiency ratio of 3.67%, FCR 0,96 and feed utilization efficiency of 95,88. Addition of probiotics in feed had no significant effect on water quality.

Keywords: catfish, dose, feed efficiency, probiotic, water quality