Intisari

PENGARUH FREKUENSI RESIRKULASI AIR HARIAN
TERHADAP PERTUMBUHAN LELE (*Clarias* sp.)

Tujuan dari penelitian ini yaitu untuk mengetahui pengaruh frekuensi resirkulasi air harian terhadap pertumbuhan lele (*Clarias* sp.). Pelaksanaan penelitian dilakukan pada bulan Desember-Maret 2022 dan berlokasi di Dusun Kandangsari, Sukoharjo, Ngaglik, Yogyakarta. Rancangan yang digunakan pada penelitian ini yaitu rancangan acak lengkap (RAL) dengan tiga perlakuan dengan 4 ulangan yaitu perlakuan frekuensi resirkulasi air 1 jam sehari, perlakuan frekuensi resirkulasi air 2 jam sehari, dan perlakuan frekuensi resirkulasi air 3 jam sehari. Kolam yang digunakan untuk budidaya lele menggunakan kolam bak beton dengan konsep *central drain* dengan volume air kolam budidaya 706,5 liter dan volume bak filter 215,6 liter. Filter yang digunakan pada bak penyaringan terdiri dari ijuk, batu apung dan arang. Persentase air yang terganti selama perlakuan resirkulasi yaitu 7,82 %/hari pada perlakuan 1 jam resirkulasi, 15,75 %/hari pada perlakuan 2 jam resirkulasi, dan 23,62 %/hari pada perlakuan 3 jam resirkulasi. Pemeliharaan ikan dilakukan selama 106 hari dengan padat tebar 283 ekor/m^3 atau 200 ekor/kolam. Berdasarkan uji ANOVA, terdapat hasil beda nyata pada pertumbuhan berat mutlak, laju pertumbuhan spesifik berat, sintasan, konversi pakan, dan produksi lele. Frekuensi resirkulasi air 117 menit per hari menghasilkan pertumbuhan mutlak berat tertinggi sebesar 140,84 g. Frekuensi resirkulasi air 127 menit per hari menghasilkan laju pertumbuhan harian spesifik berat tertinggi sebesar 3,47 %/hari. Frekuensi resirkulasi air 95 menit per hari menghasilkan produksi tertinggi sebesar 28,85 kg/m^3 air.

Kata kunci: Berat, lele, pertumbuhan, produksi, resirkulasi

Abstract

EFFECT OF DAILY WATER RECIRCULATION FREQUENCY
TO CATFISH (*Clarias* sp.) GROWTH

This study aims to determine the effect of the frequency of daily water recirculation on the growth of catfish (*Clarias* sp.). This study was conducted in December-March 2022 and located in Kandangsari, Sukoharjo, Ngaglik, Yogyakarta. This study used a complete randomized design (RAL) with three treatments and four repitation which was 1 hour recirculation frequency per day, 2 hours recirculation frequency per day, and 3 hours of recirculation frequency per day. The pond used in this study was a concrete tub with a central drain concept with a volume was 706.5 liters and volume of filter pound was 215.5 liter. The filter used three components consisting of fibers, pumice and charcoal. The percentage of water replaced during the recirculation treatment was 7.82 %/day at 1 hour of recirculation treatment, 15.75 %/day in the 2 hour recirculation treatment, and 23.62 %/day in the 3 hour recirculation treatment. Fish rearing is carried out for 106 days with a stocking density of 283 heads/m^3 or 200 heads/pond. Based on the ANOVA test, had provided a significant difference in average absolute growth, average specific growth weight rates, survival rates, feed conversion ratio, and catfish production. The water recirculation frequency of 117 minutes per day resulted in the highest absolute weight growth of 140.84 g. The water recirculation frequency of 127 minutes per day resulted in the highest weight-specific daily growth rate of 3.47%/day. The frequency of water recirculation of 95 minutes per day resulted in the highest production of 28.85 kg/m^3 water.

Keywords: Catfish, growth, production, recirculation, weight