

**PENGARUH FREKUENSI PERGANTIAN AIR BAK PENYARINGAN  
TERHADAP PERTUMBUHAN DAN SINTASAN LELE (*Clarias sp.*)  
DENGAN SISTEM RESIRKULASI**

Penelitian ini bertujuan untuk mengetahui pengaruh dan hasil yang terbaik frekuensi pergantian air bak penyaringan pada budidaya lele dengan sistem resirkulasi terhadap pertumbuhan dan sintasan lele. Penelitian dilakukan pada Agustus-November 2021 di Kandang Sari, Sukoharjo, Ngaglik, Sleman, Daerah Istimewa Yogyakarta. Perlakuan pergantian air bak penyaringan yaitu 2, 4 dan 6 hari sekali dengan 4 ulangan. Pemberian pakan dilakukan sebanyak 2 kali sehari dengan *ad satiation*. Benih lele ukuran 7-9 cm dipelihara di kolam buis beton diameter 1 m ketinggian 1 m, volume 705 liter dengan padat tebar 200 ekor/705 liter air selama 12 minggu. Parameter yang diamati meliputi pertumbuhan mutlak, laju pertumbuhan spesifik, rasio konversi pakan, sintasan, total produksi dan kualitas air. Perlakuan pergantian air bak penyaringan 2, 4 dan 6 hari sekali mendapatkan hasil pertumbuhan mutlak  $112,07 \pm 0,96$  g,  $106,18 \pm 3,3$  g dan  $104,57 \pm 1,18$  g, laju pertumbuhan spesifik  $3,74 \pm 0,12$  %/hari,  $3,45 \pm 0,13$  %/hari dan  $3,52 \pm 0,06$  %/hari, rasio konversi pakan  $1,10 \pm 0,03$ ,  $1,13 \pm 0,02$  dan  $1,21 \pm 0,04$ , sintasan  $73,5 \pm 3,48$  %,  $65,87 \pm 7,2$  % dan  $74,12 \pm 2,39$  %, total produksi  $15,23 \pm 0,79$  kg,  $14,53 \pm 1,42$  kg dan  $13,61 \pm 0,44$  kg. Hasil penelitian menunjukkan frekuensi pergantian air bak penyaringan pada budidaya lele dengan sistem resirkulasi berpengaruh nyata terhadap pertumbuhan berat dan panjang mutlak, laju pertumbuhan berat dan panjang spesifik, rasio konversi pakan dan tidak berpengaruh nyata pada sintasan dan total produksi. Perlakuan terbaik pada pertumbuhan berat dan panjang mutlak, laju pertumbuhan berat dan panjang spesifik dan rasio konversi pakan adalah pergantian air bak penyaringan 2 hari sekali.

Kata kunci: frekuensi, penyaringan, pertumbuhan, resirkulasi, sintasan

**EFFECTS OF FREQUENCY FILTERING POND WATER CHANGE  
ON GROWTH AND SURVIVAL OF CATFISH (*Clarias* sp.)  
WITH RECIRCULATION SYSTEM**

The study aimed to determine the effects and the best results on the frequency of water changing in the filter pond for catfish cultivation with recirculation system on the growth and survival of catfish. The study was conducted in August-November 2021 at Kandang Sari, Sukoharjo, Ngaglik, Sleman, Special Region of Yogyakarta. The treatment for changing the water in the filter pond was every 2, 4 and 6 days with 4 replications. Feeding was 2 times a day with ad satiation. Catfish seeds measuring 7-9 cm were reared in a concrete buis pond with a diameter of 1 m and a height of 1m, water volume 705 liters with a stocking density of 200 fish/705 liters of water for 12 weeks. Parameters included absolute growth, specific growth rate, feed conversion ratio, survival, total production, and water quality. The treatment of changing the water in the filter pond every 2, 4 and 6 days obtained absolute growth results of  $112.07 \pm 0.96$  g,  $106.18 \pm 3.3$  g and  $104.57 \pm 1.18$  g, specific growth rate of  $3.74 \pm 0.12$  %/day,  $3.45 \pm 0.13$  %/day and  $3.52 \pm 0.06$  %/day, feed conversion ratio  $1.10 \pm 0.03$ ,  $1.13 \pm 0.02$  and  $1.21 \pm 0.04$ , survival  $73.5 \pm 3.48$  %,  $65.87 \pm 7.2$  % and  $74.12 \pm 2.39$  %, total production  $15.23 \pm 0.79$  kg,  $14.53 \pm 1.42$  kg and  $13.61 \pm 0.44$  kg. The results showed that the frequency of water changing in the filter pond in catfish cultivation with recirculation system had a significant on absolute weight and length growth, specific weight and length growth rate, feed conversion ratio and no significant effect on survival and total production. The best treatment for absolute weight and length growth, specific weight and length growth rate and feed conversion ratio was changing the filtered water every 2 days.

**Keywords:** filter, frequency, growth, recirculation, survival