

ABSTRAK

Daun mengkudu mengandung senyawa yang mampu menghambat pertumbuhan bakteri patogen didalam saluran pencernaan sehingga mampu mengoptimalkan proses penyerapan nutrisi dan menjaga kesehatan ikan. Tujuan penelitian ini untuk mengetahui pengaruh ekstrak daun mengkudu pada jumlah total bakteri dan proporsi bakteri gram positif dan negatif disaluran pencernaan ikan lele. Metode yang digunakan pada penelitian ini adalah metode eksperimental dengan 4 perlakuan dan 3 ulangan individu yaitu P0 sebagai kontrol, P1 Ikan lele diberi ekstrak daun mengkudu dosis 3 gr/kg, P2 Ikan lele diberi ekstrak daun mengkudu dosis 5 gr/kg, P3 Ikan lele diberi ekstrak daun mengkudu dosis 7 gr/kg. Sampel yang diambil yaitu pada bagian saluran pencernaan. Berdasarkan hasil penelitian pada P0 terdapat $2,14 \pm 1,51 \times 10^7$ CFU/g, P1 sebanyak $3,69 \pm 4,93 \times 10^7$ CFU/g, P2 sebanyak $7,34 \pm 6,81 \times 10^7$ CFU/g, dan pada P4 sebanyak $9,11 \pm 13,26 \times 10^7$ CFU/g. Untuk Uji sifat gram dengan KOH menunjukkan bahwa bakteri gram positif relatif lebih tinggi pada saluran pencernaan ikan lele yang diberi pakan dengan penambahan daun mengkudu, pada P0 terdapat bakteri Gram positif sebanyak 83,93% dan bakteri Gram negatif sebanyak 16,07%, P1 yakni 85,43% bakteri Gram positif dan 14,57% Gram negatif, P2 menghasilkan bakteri Gram positif sebesar 86,70% dan bakteri Gram negatif sebesar 13,30%, P3 terdapat 87,59% bakteri Gram positif dan hanya 12,41% Gram negatif. Kualitas air yang diamati meliputi pH, suhu dan kandungan oksigen. Nilai pH selama pemeliharaan yaitu 6-7, suhu berkisar 25-27°C, kandungan oksigen terlarut selama pemeliharaan berkisar antara 6,93-7,93 mg/L. Kualitas air pada penelitian ini masih dalam kondisi yang normal.

Kata kunci: Ekstrak daun mengkudu, Ikan lele, Bakteri, KOH dan Kualitas Air.

ABSTRACT

Noni leaf contains compounds that are able to inhibit the growth of pathogenic bacteria in the digestive tract so as to optimize the process of absorption of nutrients and maintain the health of fish. The purpose of this research was to determine the effect of noni leaf extract on the total number of bacteria and the proportion of gram positive and negative bacteria in the digestion of catfish. The method used in this study was an experimental method with 4 treatments and 3 individual replications namely P0 as a control, P1 Catfish was given a noni leaf extract at a dose of 3 gr/kg, P2 Catfish was given a noni leaf extract at a dose of 5 gr/kg, P3 Catfish Noni leaf extract was given a dose of 7 gr/kg. Samples taken are in the digestive tract. Based on the results of research on P0, there are $2.14 \pm 1.51 \times 10^7$ CFU/g, P1 is $3.69 \pm 4.93 \times 10^7$ CFU/g, P2 is $7.34 \pm 6.81 \times 10^7$ CFU/g, and in P4 as much as $9.11 \pm 13.26 \times 10^7$ CFU/g. To test the properties of gram with KOH showed that gram-positive bacteria were relatively higher in the digestive tract of catfish fed with the addition of noni leaves, in P0 there were 83.93% positive Gram bacteria and 16.07% Gram negative bacteria, P1 ie 85.43% Gram positive bacteria and 14.57% Gram negative, P2 produces Gram positive bacteria 86.70% and Gram negative bacteria 13.30%, P3 there are 87.59% Gram positive bacteria and only 12.41% Gram negative. The observed water quality includes pH, temperature and oxygen content. The pH value during maintenance is 6-7, temperatures range from 25-27°C, dissolved oxygen content during maintenance ranges between 6.93-7.93 mg / L. Water quality in this research is still in normal conditions.

Keywords: Noni leaf extract, Catfish, Bacteria, KOH and Water quality.