

ABSTRACT

THE HEMATOLOGY AND HISTOLOGY FEATURES OF THE LIVER OF MALE BROODSTOCK AFRICAN CATFISH *Clarias gariepinus* (Burchell, 1822) FED *Tribulus terrestris* (Linn, 1753) EXTRACT

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Chemicals that are very harmful to the environment and fish are susceptible to chemical resistance and can leave residues. The addition of natural phytochemicals containing steroid compounds, saponins, alkaloids, and flavonoids such as *Tribulus terrestris* as a substitute for chemicals is expected to boost the immune system non specific environmentally friendly. This research was conducted during 45 days of feeding maintenance using additional *T. terrestris* extracts to evaluate the hematology and histology profile of african catfish broodstock (*Clarias gariepinus*) male. The catfish used as many as 75 males which were divided into 5 treatments. Each treatment had three repeats. The treatments used were feed that was subjected to treatment A (alcohol 95%), B (metil testosterone of 60 mg/kg feed), C (*T. terrestris* extract of 250 mg/kg feed), D (*T.terrestris* extract of 500 mg/kg feed), and E (*T.terrestris* extract of 750 mg/kg feed). There was no significantly difference between hemoglobin, hematocrit levels, erythrocyte, monocytes, neutrophils and somatic hepato index. However, the total value of lymphocytes, phagocytosis activity, and leukocytes had a significantly different effect. The results showed that the male catfish were better with feeding containing extract of *T. terrestris* 250 mg/kg feed.

Keywords: *Tribullus terrestris* extract, hematology, histology, african catfish broodstock.

ABSTRAK

STUDI HEMATOLOGI DAN HISTOLOGI HATI INDUK LELE MUTIARA *Clarias gariepinus* (Burchell, 1822) JANTAN DENGAN PENAMBAHAN *Tribulus terrestris* (Linn, 1753) PADA PAKAN

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Bahan kimia sangat berbahaya bagi lingkungan, dan ikan yang rentan resistan terhadap bahan kimia, dan dapat meninggalkan residu. Penambahan fitobiotik bahan alami yang memiliki senyawa steroid, saponin, alkaloid, dan flavonoid seperti *Tribullus terrestris* sebagai pengganti bahan kimia di harapkan mampu meningkatkan sistem imun non spesifik yang ramah lingkungan. Penelitian ini dilakukan selama 45 hari pemeliharaan pemberian pakan menggunakan pakan tambahan ekstrak *T. terrestris* untuk mengevaluasi profil hematologi, dan histologi hati induk lele mutiara (*Clarias gariepinus*) jantan. Induk lele yang digunakan sebanyak 75 ekor, induk lele jantan dibagi menjadi 5 perlakuan. Setiap perlakuan terdapat 3 ulangan. Perlakuan yang digunakan dalam penelitian ini adalah pakan yang diberi perlakuan A (alkohol 95%), B (*metil testosterone* 60 mg/kg pakan), C (ekstrak *T. terrestris* 250 mg/kg pakan), D (ekstrak *T. terrestris* 500 mg/kg pakan), dan E (ekstrak *T. terrestris* 750 mg/kg pakan). Tidak ada perbedaan yang signifikan antara nilai hemoglobin, kadar hematokrit, total eritrosit, total monosit, total neutrofil, dan *indeks hepato somatik*. Namun demikian nilai total limfosit, aktivitas fagositosis, dan total leukosit berbeda nyata. Hasil penelitian menunjukkan bahwa induk lele mutiara jantan lebih baik dengan pemberian pakan yang mengandung ekstrak *T. terrestris* 250 mg/kg pakan.

Kata Kunci : Ekstrak *Tribullus terrestris*, hematologi, histologi, induk lele.