# ABSTRAK

Penggunaan ekstrak daun *Avicennia marina* dalam pengendalian penyakit bakteri ikan dapat mempengaruhi jumlah total bakteri di saluran pencernaan ikan. Bakteri di saluran pencernaan memiliki peran penting bagi inangnya. Tujuan penelitian ini adalah untuk mengetahui pengaruh esktrak daun *A. marina* dalam pakan terhadap total bakteri dan proporsi bakteri Gram positif dan negatif di saluran pencernaan ikan nila (*Oreochromis niloticus*). Jumlah total bakteri saluran pencernaan ikan dihitung menggunakan metode *total plate count* menggunakan media *Trypticase soy agar* (TSA) dari dua kelompok ikan : 1) diberi pakan komersial tanpa penambahan ekstrak dan 2) diberi tambahan ekstrak dari 2 g daun *A. marina* kering per 1 kg pakan. Sampel bakteri diuji Gram menggunakan larutan KOH 3% untuk menghitung proporsi bakteri Gram positif dan negatif. Hasil menunjukkan jumlah total bakteri di saluran pencernaan ikan nila yang diberi ekstrak daun kering *A. marina* secara signifikan lebih tinggi dibandingkan dengan yang tidak diberi ekstrak. Proporsi bakteri Gram positif dan negatif di saluran pencernaan ikan dari dua perlakuan relatif sama. Hasil ini mengindikasikan pemberian ekstrak daun *A. marina* mengubah komunitas bakteri di saluran pencernaan ikan nila.

**Kata kunci** : *ekstrak daun api-api putih, ikan nila, bakteri saluran pencernaan*.

# ABSTRACT

The use of *Avicennia marina* leaf extract in the control of fish bacterial diseases could affect the total number of bacteria in the digestive tract of fish. Bacteria in the digestive tract have important roles for the fish. The purpose of this study was to examine the effect of extract of *A. marina* leaves in feed on total bacteria and the proportion of Gram positive and negative bacteria in the digestive tract of nile tilapia (*Oreochromis niloticus*). The total number of fish digestive tract bacteria was determined using the total plate count method on trypticase soy agar (TSA) media from two groups of the fish: 1) was fed commercial feed without the addition of extract and the second was fed commercial feed is given an additional extract of 2 g of dried *A. marina* leaves per 1 kg of feed. Gram assay of bacterial samples was performed using 3% KOH solution and the result was used to calculate bacterial proportion of Gram positive and negative. The results showed the total number of bacteria in the digestive tract of nile tilapia fish given *A. marina* dried leaf extract was significantly higher compared to this of the fish not given the extract. The proportion of Gram positive and negative bacteria in the digestive tract of fish from the two treatments is relatively the same. These results indicate the administration of A. marina leaf changing the bacterial community in the digestive tract of tilapia fish.



**Key words :** *avicennia marina leaf extract, nile tilapia, bacteria of digestive tract.*