

Intisari

Penelitian ini bertujuan untuk melakukan uji *in vivo* aktivitas *anti-Quorum Sensing* dan aktivitas antibakteri dari ekstrak air tanaman herbal yang meliputi jahe, temulawak dan kunyit terhadap bakteri *Aeromonas hydrophila* pada ikan lele dumbo (*Clarias sp.*). Penelitian dilakukan secara rancang acak lengkap yang terdiri dari 4 perlakuan yaitu 3 perendaman bahan ekstrak herbal dan 1 kontrol dengan masing-masing 3 kali ulangan. Lele dumbo diinjeksi bakteri *A. hydrophila* secara intraperitoneal pada konsentrasi 10^5 cfu/ikan kemudian dilakukan perendaman ikan selama 12 jam pada air yang telah diberikan ekstrak bahan herbal berupa jahe, temulawak, dan kunyit dengan konsentrasi jahe 40mg/ml, temulawak 40mg/ml, dan kunyit 30mg/ml. Perendaman menggunakan jahe dan temulawak mampu menghambat pertumbuhan bakteri dengan mortalitas 27,7% dan 36,6%. Perendaman dengan jahe, merupakan perlakuan terbaik dengan tingkat perlindungan relatif 53,83%.

Kata kunci : *Aeromonas hydrophila*, *anti-quorum sensing*, jahe, kunyit, temulawak

ABSTRACT

This research aims to determine in vivo the activity of water extracts of ginger, Javanese ginger, and turmeric against *Aeromonas hydrophila* infection in catfish (*Clarias sp.*). The study was conducted in a completely randomized design (CRD) consisting of four treatments, namely immersion of three herbal extracts and one control with three replications. The catfish were injected intraperitoneally with *A. hydrophila* at concentration of 10^5 cfu/fish then followed with fish immersion in water containing herbal extracts of ginger, curcuma, and turmeric at a concentration of 40, 40, and 30 mg/ml for 12 hours. Immersion of fish in the water extract of ginger and curcuma were able to inhibit the growth of bacteria and gives the mortality of 27.7% and 36.6%, respectively. Immersion of fish in the ginger water extract was the best treatment with the relative percentage survival of 53.83%.

Key Word : *Aeromonas hydrophila*, catfish, ginger, Javanese ginger, turmeric