

ABSTRAK

UJI ANTIFUNGI EKSTRAK DAUN KAYU MANIS DAN RIMPANG KUNYIT TERHADAP PENYAKIT ANTRAKNOSA (*Colletotrichum capsici*) PADA BUAH CABAI

Oleh

UH'YAN ABADAN KHASANAH. HK

Salah satu penyakit penting pada tanaman cabai ialah penyakit antraknosa yang disebabkan oleh *Colletotrichum capsici*. Penelitian ini bertujuan untuk mengetahui pengaruh ekstrak daun kayu manis dan rimpang kunyit mengendalikan penyakit antraknosa. Penelitian dilakukan secara *in vitro* dan *in vivo*. Perlakuan disusun dalam Rancangan Acak Lengkap (RAL). Pada percobaan *in vitro*, terdapat 10 perlakuan yaitu konsentrasi ekstrak daun kayu manis dan rimpang kunyit 0%, ekstrak daun kayu manis 0,25%, 0,50%, 0,75%, 1,00%, ekstrak rimpang kunyit 0,25%, 0,50%, 0,75%, 1,00% dan fungisida propineb 70%. Pada percobaan *in vivo* terdiri atas 10 perlakuan yaitu konsentrasi ekstrak daun kayu manis dan rimpang kunyit 0%, ekstrak daun kayu manis 1%, 2%, 3%, 4%, ekstrak rimpang kunyit 1%, 2%, 3%, 4% dan fungisida propineb 70%. Variabel pengamatan pada uji *in vitro* ialah diameter koloni, kepadatan spora, dan perkecambahan spora. Variabel pengamatan *in vivo* ialah keterjadian dan keparahan penyakit. Hasil penelitian *in vitro* menunjukkan bahwa ekstrak daun kayu manis dapat menghambat pertumbuhan koloni pada semua konsentrasi sedangkan ekstrak rimpang kunyit mampu menghambat pertumbuhan koloni pada konsentrasi 0,50%, 0,75%, dan 1,00%. Hasil penelitian *in vivo* menunjukkan bahwa ekstrak daun kayu manis lebih efektif dalam menekan keparahan penyakit pada konsentrasi 3% dan 4% sedangkan ekstrak rimpang kunyit belum mampu menurunkan keparahan penyakit.

Kata kunci: Cabai, *Colletotrichum capsici*, ekstrak daun kayu manis, ekstrak rimpang kunyit

ABSTRACT

UJI ANTIFUNGI EKSTRAK DAUN KAYU MANIS DAN RIMPANG KUNYIT TERHADAP PENYAKIT ANTRAKNOSA (*Colletotrichum capsici*) PADA BUAH CABAI

By

UH'YAN ABADAN KHASANAH. HK

One of the most important diseases affecting chili plants is anthracnose, caused by *Colletotrichum capsici*. This study aims to determine the effect of cinnamon leaf extract and turmeric rhizome extract on controlling anthracnose. The study was conducted *in vitro* and *in vivo*. The treatments were arranged in a Completely Randomized Design (CRD). In the *in vitro* experiment, there were 10 treatments: 0% concentration of cinnamon leaf and turmeric rhizome extracts, 0.25%, 0.50%, 0.75%, 1.00%, turmeric rhizome extract at 0.25%, 0.50%, 0.75%, 1.00%, and propineb fungicide at 70%. The *in vivo* experiment consisted of 10 treatments: 0% concentration of cinnamon leaf and turmeric rhizome extracts, 1%, 2%, 3%, and 4% cinnamon leaf extract, 1%, 2%, 3%, and 4% turmeric rhizome extract, and 70% propineb fungicide. The observation variables in the *in vitro* test were colony diameter, spore density, and spore germination. The observation variables in the *in vivo* test were the occurrence and severity of the disease. The *in vitro* study results showed that cinnamon leaf extract could inhibit colony growth at all concentrations, while turmeric rhizome extract could inhibit colony growth at concentrations of 0.50%, 0.75%, and 1.00%. The *in vivo* study results showed that cinnamon leaf extract was more effective in reducing disease severity at concentrations of 3% and 4%, while turmeric rhizome extract was unable to reduce disease severity.

Keywords: Chili peppers, *Colletotrichum capsici*, cinnamon leaf extract, turmeric rhizome extract.