

ABSTRAK

UJI SENSITIVITAS DAN EFEKTIVITAS EKSTRAK DAUN KAYU MANIS (*Cinnamomum burmanii*) DAN RIMPANG KUNYIT (*Curcuma longa* Linn.) TERHADAP PENYAKIT ANTRAKNOSA PADA BUAH PEPAYA

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Antraknosa merupakan salah satu penyakit pascapanen pada pepaya yang bisa menyebabkan menurunkan kualitas buah pepaya. Penelitian ini bertujuan untuk mengetahui sensitivitas ekstrak daun kayu manis dan rimpang kunyit terhadap pertumbuhan *C. gloeosporioides* secara *in vitro* dan efektivitas ekstrak daun kayu manis dan rimpang kunyit terhadap penyakit antraknosa pada buah pepaya secara *in vivo*. Penelitian ini dilakukan uji secara *in vitro* dan *in vivo* dengan perlakuan disusun menggunakan RAL (Rancangan Acak Lengkap). Berdasarkan uji secara *in vitro* ekstrak daun kayu manis dan rimpang kunyit efektif menghambat pertumbuhan koloni *C. gloeosporioides* pada konsentrasi 0,25%, 0,50%, 0,75% dan 1,00%. Pada uji secara *in vivo* ekstrak daun kayu manis dan rimpang kunyit dapat menurunkan keparahan dan keterjadian penyakit antraknosa pada konsentrasi 0,75%, 1,00%, 1,25% dan 1,50%. Ekstrak daun kayu manis efektif menekan penyakit antraknosa pada konsentrasi 1,50% sedangkan rimpang kunyit pada konsentrasi 1,00%.

Kata Kunci: Antraknosa, buah pepaya, *Colletotrichum gloeosporioides*, ekstrak daun kayu manis, rimpang kunyit

ABSTRACT

TESTING THE SENSITIVITY AND EFFECTIVENESS OF CINNAMON LEAF EXTRACT (*Cinnamomum burmanii*) AND TURMERIC RHIZOME (*Curcuma longa* Linn.) AGAINST ANTHRACNOSE DISEASE IN PAPAYA FRUIT

By

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Anthrachnose is one of the post-harvest diseases in papaya that can reduce the quality of papaya fruit. This study aimed to determine the sensitivity of cinnamon leaf extract and turmeric rhizome extract to the growth of *C. gloeosporioides* in vitro and the effectiveness of cinnamon leaf extract and turmeric rhizome extract against anthracnose disease in papaya fruit in vivo. This study was conducted using in vitro and in vivo tests with treatments arranged using a completely randomized design (CRD). Based on in vitro tests, cinnamon leaf and turmeric rhizome extracts were effective in inhibiting the growth of *C. gloeosporioides* colonies at concentrations of 0.25%, 0.50%, 0.75%, and 1.00%. In vivo tests showed that cinnamon leaf and turmeric rhizome extracts could reduce the severity and incidence of anthracnose disease at concentrations of 0.75%, 1.00%, 1.25%, and 1.50%. Cinnamon leaf extract was effective in suppressing anthracnose disease at a concentration of 1.50%, while turmeric rhizome was effective at a concentration of 1.00%.

Keywords: Anthracnose, papaya fruit, *Colletotrichum gloeosporioides*, cinnamon leaf extract, turmeric rhizome